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THE HANDY BOOK  
OF  
ANATOMICAL PLATES.



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*1883*

THE  
HANDY BOOK  
OF  
ANATOMICAL PLATES.

DESIGNED, UNDER THE DIRECTION OF  
PROFESSOR MASSE,  
BY CORBIÉ AND LEVIELLÉ.

*(Adapted by the Imperial Council of Public Instruction in France.)*

SECOND EDITION.

WITH A DESCRIPTIVE TEXT BY  
E. BELLAMY, F.R.C.S. (EXAM.),  
ASSOCIATE OF KING'S COLLEGE, LONDON,  
SENIOR ASSISTANT SURGEON TO CHARING CROSS HOSPITAL,  
ETC., ETC.

---

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1873.

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## PREFACE TO SECOND ENGLISH EDITION.

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THE success attending the first English edition of Prof. Masse's useful work, has induced the publishers to undertake a second. All inaccuracies have been carefully corrected, and the text has been thoroughly revised.\* I have to return my best thanks to my friend and pupil Mr. J. C. Cantlie, M.A., for his kindness in assisting in re-editing the work.

EDWARD BELLAMY.

59, MARGARET STREET, CAVENDISH SQUARE, W.,  
*January, 1873.*

\* A serious mistake arose in printing the First Edition, owing to the type being taken down and rendered invalid without the Editor's corrections.



## PREFACE TO FIRST ENGLISH EDITION.

---

THE great success which has attended the "PETIT ATLAS COMPLET D'ANATOMIE" of Professor Masse in France, has induced the Publisher of the present volume to bring out an edition in English for the use of Students and those who may require the assistance of Anatomical Plates. The plan on which this edition has been based is simply that of reference to the Plate; and the structure, indicated by its figure, is explained in the letterpress. In many instances, a bare translation of the French idiom would be unintelligible, and, moreover, different terms are in use in English and French works. Care has been taken, in cases of translation, to render the French phrases into their English equivalents. As a book of reference, though of course small, the Plates are wonderfully distinct and correct, and the series of *Ligaments*, *Muscles*, *Vessels*,

and *Nerves*, are excellent guides to the processes of dissection, and to the best methods of exposing regions, *with* the assistance of some good Manual of Practical Anatomy. It is particularly intended as a "Handy-book," whether for use in the dissecting-room or the study.

It may be remarked that the French original is the book recommended by the Imperial Council of Public Instruction in France.

It is hoped that any errors which may have been made in the bringing out of this edition will be found to be corrected in the page of errata ; and the Editor has particularly to thank Messrs. W. H. Pearce and W. D. Hyde, Assistant Demonstrators of Anatomy in Charing Cross Hospital, for their kindness in revising the proof sheets.

E. B.

22, MARGARET STREET, CAVENDISH SQUARE, W.,

*February 9, 1869.*



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Fig 1



Fig 2

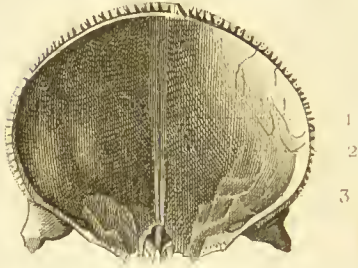
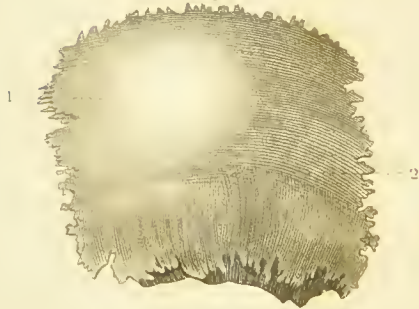


Fig 3.



Fig 4





## PLATE I.

### OSTEOLOGY, PLATE I.

*Fig. 1. FRONTAL BONE (anterior surface).*

1. Mesial line, in which is seen the remains of the frontal suture.—2. Frontal eminence.—3. Superciliary ridge.—4. Portion of the temporal ridge and of the temporal fossa.—5. Nasal spine and notch.—6. Orbital ridge, which has on its internal third the infra-orbital notch, and at its extremities the internal and external angular processes.

*Fig. 2. FRONTAL BONE (posterior surface).*

1. Portion of the groove for the superior longitudinal sinus, terminated by the crista galli.—2. Frontal fossa.—3. Orbital eminence.

*Fig. 3. FRONTAL BONE (inferior surface).*

1. Ethmoidal notch, having in front the nasal spine and opening of the frontal sinuses ; at the sides, portions of cells, amongst which may be seen four or five small canals partly forming the internal orbital foramina.—2. Orbital plate.—3. Fossa for lachrymal gland.—4. Depression for the pulley of the superior oblique.—5. Surfaces articulating with the sphenoid bone.

*Fig. 4. RIGHT PARIETAL BONE (external surface).*

1. Parietal eminence.—2. Temporal ridge.

## PLATE II.

### OSTEOLOGY, PLATE II.

*Fig. 1. RIGHT PARIETAL BONE (internal surface).*

1. Groove for middle meningeal artery and its branches.—
2. Portion of the hollow which partly lodges the lateral sinus.

*Fig. 2. ETHMOID BONE (superior surface).*

1. Crista galli.—2. Cribriform plate of the ethmoid, with grooves for the olfactory nerve, and pierced with foramina which give passage to the divisions of this nerve.—3. Small notch which, united with the frontal bone, forms one of the internal orbital foramina.

*Fig. 3. ETHMOID (inferior surface).*

1. Perpendicular plate of the ethmoid.—1. Middle turbinated bone.

*Fig. 4. ETHMOID, SEEN FROM BEHIND.*

1. Crista galli.—2. Perpendicular plate.—3. Cribriform plate.—4. Posterior ethmoidal cells.

*Fig. 5. ETHMOID, SEEN FROM THE FRONT.*

1. Crista galli.—2. Perpendicular plate.—3. Anterior ethmoidal cells.

*Fig. 6. ETHMOID (external surface).*

1. Os planum or thin plate, forming the greater part of the internal wall of the orbit.

*Fig. 7. ETHMOID (internal surface).*

1. Superior turbinated bone.—2. Superior meatus.—3. Middle turbinated bone.

*Fig. 8.*

1. The crista galli.—2. The perpendicular plate.—3. The cribriform plate, in which are shown the foramina cut vertically.

Pl. 2

Fig 1

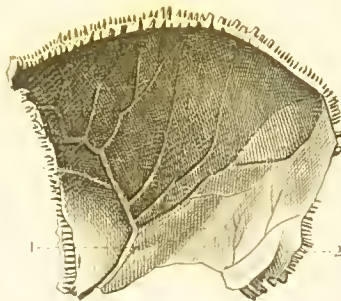


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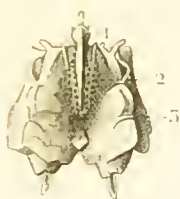


Fig 3



Fig 4



Fig 5



Fig 6



Fig 7

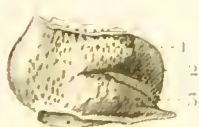


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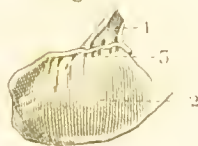








Fig 1



Fig 2

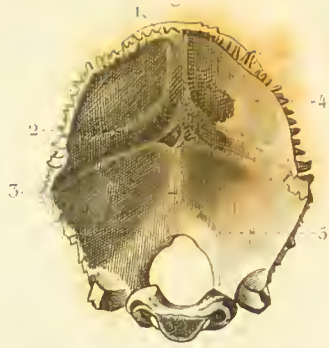


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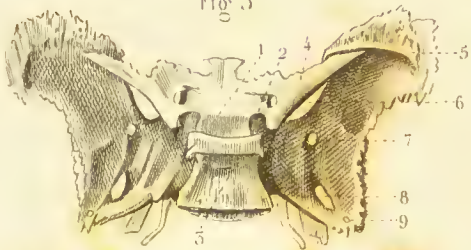


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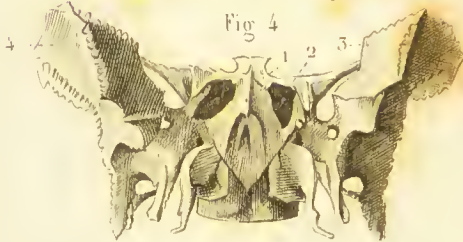


Fig 5.



Fig 6



## PLATE III.

### OSTEOLOGY, PLATE III.

#### *Fig. 1. OCCIPITAL BONE (external surface).*

In the mesial line are seen :—1. The external occipital protuberance.—2. The external occipital crest.—3. The foramen magnum.—4. The inferior surface of the basilar process.—5. The superior curved line.—6. The inferior curved line.—7. The condyle, external to and behind which is seen the condyloid fossa.

#### *Fig. 2. OCCIPITAL BONE (internal surface).*

1. Portion of groove for superior longitudinal sinus, which is continuous with—2. The grooves for the lateral sinuses.—3. Internal occipital crest.—4. Superior occipital fossa.—5. Inferior occipital fossa.

#### *Fig. 3. SPHENOID BONE (superior surface).*

1. Sella turcica.—2. Optic foramen.—3. Quadrilateral plate which limits the sella turcica.—4. Lesser wing of sphenoid or process of Ingrassias, at the base of which are the optic foramen and the anterior clinoid process.—5. Greater wing of sphenoid.—6. Sphenoidal fissure.—7. Foramen rotundum for superior maxillary nerve.—8. Foramen ovale for inferior maxillary nerve.—9. Foramen spinosum.

#### *Fig. 4. SPHENOID BONE, SEEN FROM THE FRONT.*

1. Rostrum.—2. Openings of the sphenoidal cells.—3. Portion of greater wing forming part of the external wall of the orbit.—4. Portion of greater wing forming part of the temporal fossa.

#### *Fig. 5. TEMPORAL BONE (external surface).*

1. Portion of temporal fossa.—2. Zygomatic process.—3. Portion of temporal ridge.—4. Glenoid cavity.—5. External auditory meatus.—6. Mastoid process.—7. Mastoid foramen.

#### *Fig. 6. TEMPORAL BONE (internal surface).*

1. Petrous portion.—2. Internal auditory foramen.—3. Styloid process.—4. Portion of groove for lateral sinus.

## PLATE IV.

### OSTEOLOGY, PLATE IV.

*Fig. 1.* SKULL, SEEN FROM THE LEFT SIDE AND IN FRONT.

1. Temporal fossa.—2. Temporo-parietal suture.—3. Sphenoparietal suture.—4. Parieto-frontal suture.—5. Sphenotemporal suture.—6. Zygomatic fossa.

*Fig. 2.* SKULL, SEEN FROM BELOW.

1. Palatine arch and point of union of four sutures, where five bones can be touched with the point of a scalpel, viz. :—the two superior maxillary, the two palate bones and the vomer.—2. One of the posterior openings of the nasal fossæ, separated from the opposite opening by the vomer.—3. Pterygoid fossa.—4. Sphenomaxillary fissure.—5. Zygomatic fossa limited by the zygomatic arch.—6. Foramen ovale.—7. Articulation of the petrous portion of the temporal bone with the sphenoid.—8. Foramen lacerum medium.—9. External opening of the carotid canal.—10. Depression in the petrous bone which partly forms the posterior lacerated foramen.—11. Articulation of the petrous bone with the occipital.—12. One of the condyles of the occipital bone.—13. Foramen magnum.

*Fig. 3.* BASE OF SKULL, FROM ABOVE.

1. Crista galli, in front of which is the foramen cœcum, and on the sides the ethmoidal foramina.—2. Articulation of the frontal with the lesser wings of the sphenoid.—3. Lesser wing of sphenoid, at the internal extremity of which is the optic groove, and under which, hidden, is the sphenoidal fissure.—4. Sella turcica, or sphenoidal fossa, bounded by the four clinoid processes and grooves for the cavernous sinus.—5. Foramen rotundum.—6. Foramen ovale.—7. Foramen spinosum.—8. Foramen lacerum medium.—9. Basilar groove.—10. Internal auditory foramen.—11. Posterior lacerated foramen.—12. Anterior condyloid foramen.—13. Groove for lateral sinus.

Fig. 7

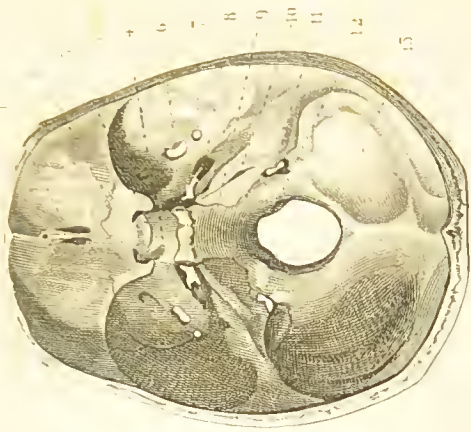


Fig. 1



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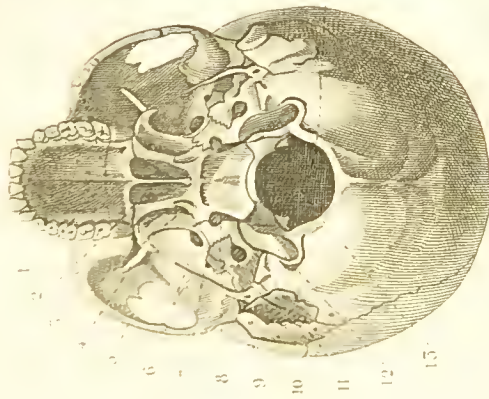








Fig 1



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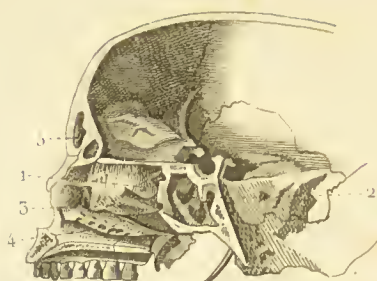


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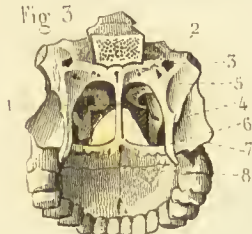


Fig 4



Fig 6.



Fig 5

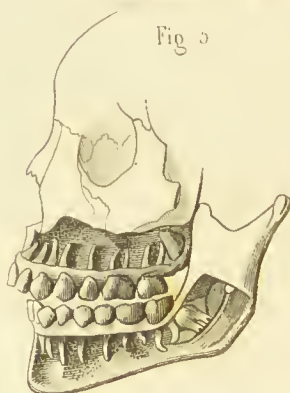


Fig 8



Fig 7





## PLATE V.

### OSTEOLOGY, PLATE V.

*Fig. 1.* VERTICAL SECTION OF THE SKULL, SHOWING THE OSSEOUS PORTION OF THE PARTITION BETWEEN THE NASAL FOSSÆ.

1. Perpendicular lamina of ethmoid.—2. Vomer.—3. Sphenoidal cells.

*Fig. 2.* VERTICAL SECTION, TO SHOW THE EXTERNAL WALL OF THE NASAL FOSSÆ.

1. Superior turbinated bone, under which is the superior meatus, and behind this meatus,—2. The sphenoidal sinus.—3. Middle turbinated bone, below which is the middle meatus.—4. Inferior turbinated bone, below which is the inferior meatus.—5. Frontal sinus.

*Fig. 3.* POSTERIOR OPENINGS OF THE NASAL FOSSÆ AND PALATINE ARCH.

1. Posterior border of vomer which separates the nasal fossæ.—2. Pterygo-palatine foramen.—3. Vidian or pterygoid foramen.—4. Pterygoid fossa.—5. Scaphoid fossa.—6. Internal pterygoid plate.—7. External pterygoid plate.—8. Suture of the four portions of the palatine arch, common to five bones, viz. :—the two palate, two superior maxillary and vomer.

*Fig. 4.* VERTICAL SECTION OF THE NASAL FOSSÆ.

1. Superior turbinated bone.—2. The superior meatus.—3. The middle turbinated bone.—4. The middle meatus, which communicates with the antrum.—5. The inferior turbinated bone.—6. The inferior meatus.

*Fig. 5.*—The external plates of the two maxillæ have been removed to show the teeth in their alveoli.

*Fig. 6.*—The external plates of the two maxillæ have been removed to show the teeth of the first and second dentition.

*Fig. 7.*—The teeth of the two maxillæ seen in front, showing the peculiarities of the four incisors and two canines in each.

*Fig. 8.*—The teeth on the left side of each maxillæ, showing the peculiarities of the canines and the lesser and larger molars.

## PLATE VI.

### OSTEOLOGY, PLATE VI.

*Fig. 1. LEFT SUPERIOR MAXILLA (external surface).*

1. Nasal process.—2. Nasal notch.—3. Orbital surface.—4 and 5. Infra-orbital groove and foramen.—6. Canine fossa.—7. Malar process.

*Fig. 2. PALATE BONE (external surface).*

1. Groove forming part of the posterior palatine canal.—2. Orbital process.—3. Sphenoidal process.—4. Notch forming part of the sphenopalatine foramen.

*Fig. 3. PALATE BONE (internal surface).*

- 1 and 2. Portion of the superior and inferior meatuses.—3. Orbital process.—4. Sphenoidal process.—5. Portion of sphenopalatine foramen.—6. Palatine tuberosity.

*Fig. 4. PALATE BONE SEEN FROM BEHIND.*

1. Posterior border.—2. Orbital process.—3. Palatine tuberosity.—4. Horizontal plate.

*Fig. 5. NASAL BONE (external surface).*

*Fig. 6. LACHRYMAL BONE (external surface).*

*Fig. 7. RIGHT MALAR BONE (external surface).*

1. Malar foramen.—2. Portion of orbit.

*Fig. 8. VOMER.*

1. Superior border.

*Fig. 9. INFERIOR TURBINATED BONE.*

*Fig. 10. LOWER JAW (external surface).*

1. External oblique line.—2. Mental foramen.—3. Condyle.—4. Coronoid process.—5. Sigmoid notch.

*Fig. 11. RIGHT HALF OF THE INFERIOR MAXILLA (internal surface).*

1. Mylo-hyoid ridge.—2. Inferior dental foramen.

*Fig. 12. HYOID BONE (anterior surface).*

1. Body.—2. Greater cornu.—3. Lesser cornu.

Fig 1



Fig 3



Fig 2



Fig 4



Fig 5



Fig 6



Fig 7

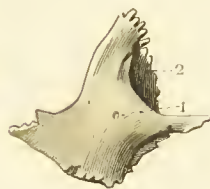


Fig 9



Fig 8



Fig 10

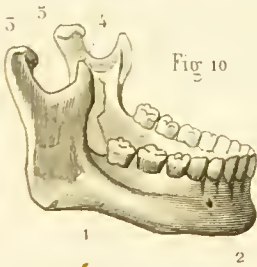


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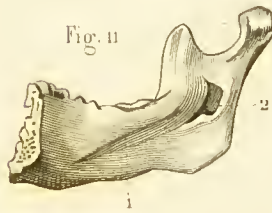


Fig 12







Fig 2

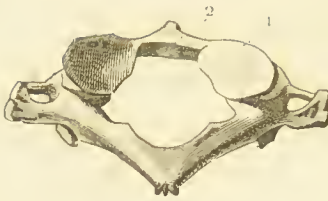


Fig 1



Fig 4



Fig 3



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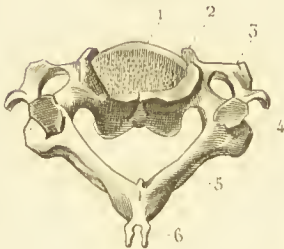


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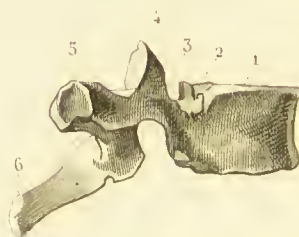


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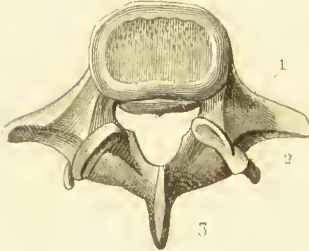


Fig 8



## PLATE VII.

### OSTEOLOGY, PLATE VII.

*Fig. 1. ATLAS (superior surface).*

1. Articular facet.—2. Anterior arch.—3. Posterior arch.—
4. Transverse process and foramen for vertebral artery.

*Fig. 2. ATLAS (inferior surface).*

1. Articular facet.—2. Small facet, articulating with the odontoid process of the axis.

*Fig. 3. AXIS (anterior surface).*

1. Body.—2. Odontoid process.—3. Articular facet.—4. Transverse process.

*Fig. 4. AXIS, SEEN FROM THE RIGHT SIDE.*

1. Body.—2. Odontoid process.—3. Articular facet.—4. Transverse process.—5. Spinous process.

*Fig. 5. A CERVICAL VERTEBRA (superior surface).*

- 1 and 2. Body.—3. Transverse process, bifid, pierced by a foramen, for the vertebral artery.—4. Articular processes.—
5. Lamina.—6. Spinous process, bifid.

*Fig. 6. A DORSAL VERTEBRA, SEEN FROM THE RIGHT SIDE.*

- 1 and 2. Body and demi-articular facet.—3. Pedicle.—4. Superior articular process.—5. Transverse process with its articular facet.—6. Spinous process.

*Fig. 7. A LUMBAR VERTEBRA (superior surface).*

1. Transverse process.—2. Superior articular process and transverse tubercle.—3. Spinous process.

*Fig. 8. A LUMBAR VERTEBRA, SEEN FROM THE RIGHT SIDE.*

1. Inferior articular process.

## PLATE VIII.

### OSTEOLOGY, PLATE VIII.

*Fig. 1.* VERTEBRAL COLUMN AS A WHOLE, SEEN FROM THE LEFT SIDE.

1 and 2. Two demi-facets, articulating with the head of a rib.—3 and 4. Two inter-vertebral foramina, formed by the union of two vertebræ.—5. Cervical vertebræ and curve.—6. Dorsal vertebræ and curve.—7. Lumber vertebræ and curve.—8. Sacrum.

*Fig. 2.* STERNUM.

1. Middle part of sternum and remains of the point of union of its two primitive pieces.—2. Superior extremity or manubrium sterni.—3. Inter-clavicular notch.—4. Surface articulating with clavicle.—5. Xiphoid or ensiform cartilage.

*Fig. 3.* FIRST RIB (*superior surface*).

1 and 2. Tubercles for insertion of the scalene muscles.—3. Groove for subclavian artery.—4. Head.—5. Tuberosity and angle.

*Fig. 4.* SECOND RIB (*superior surface*).

*Fig. 5.* MIDDLE RIB.

1. Head.—2. Neck.—3. Tuberosity.—4. Angle.

*Fig. 6.* LAST RIB WITHOUT ANGLE AND WITHOUT TUBEROSITY.

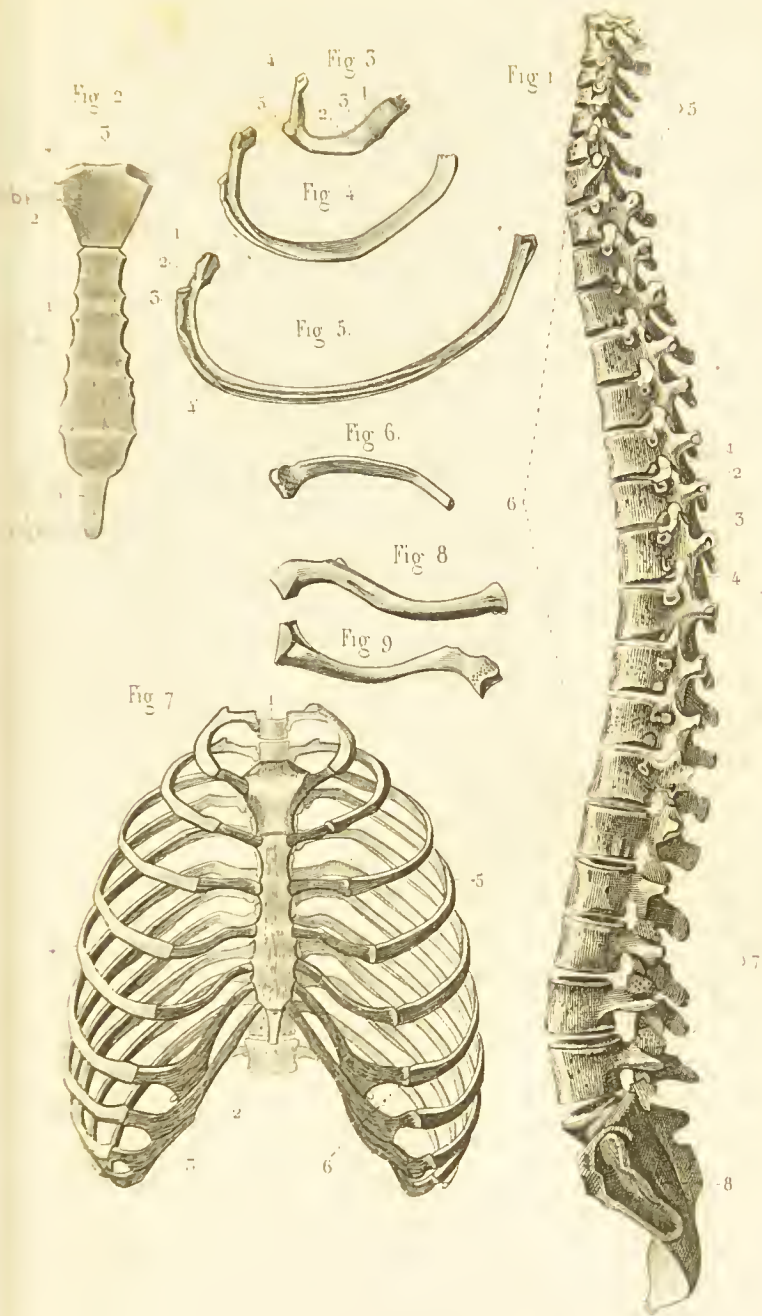
*Fig. 7.* GENERAL VIEW OF THE WALLS OF THE CHEST.

The constituent parts of it are—Behind: 1. Dorsal part of vertebral column. In front: 2 and 3. Sternum and costal cartilages. On each side—4 and 5. The twelve ribs.—6. Union of a rib with a costal cartilage.

*Fig. 8.* LEFT CLAVICLE, SEEN FROM ABOVE.

*Fig. 9.* LEFT CLAVICLE, SEEN FROM BELOW.









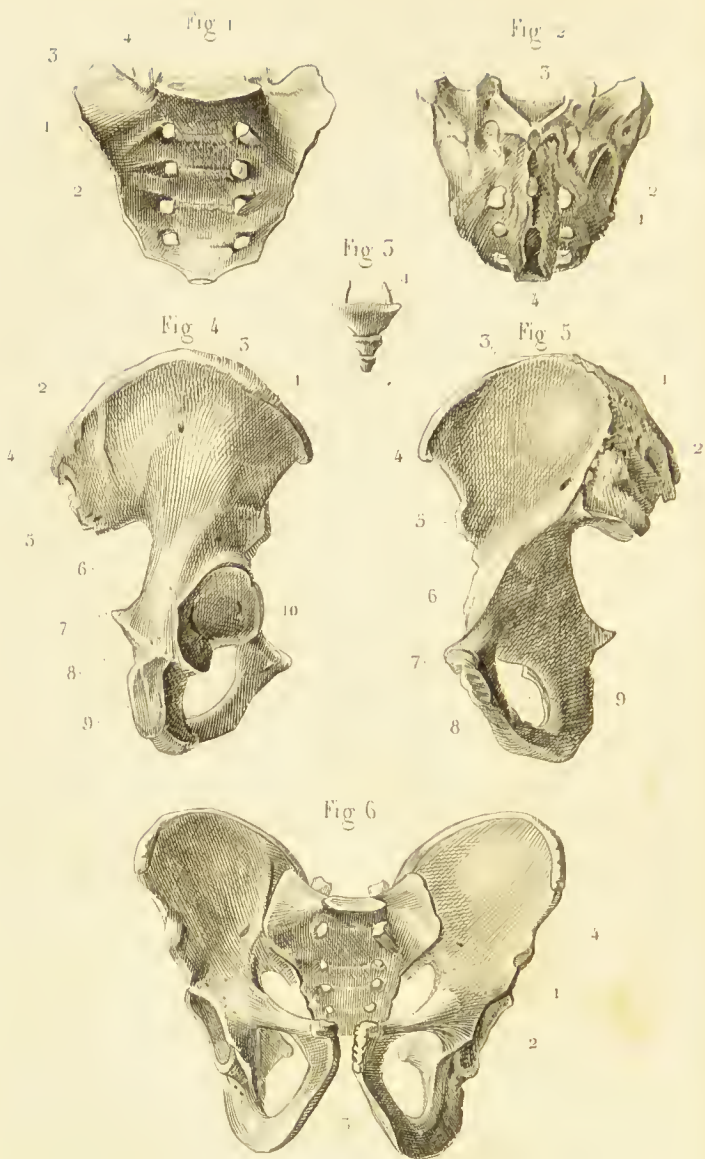


PLATE IX.

OSTEOLOGY, PLATE IX.

*Fig. 1. SACRUM (anterior surface).*

1. Crest uniting two primitive portions of the sacrum.—
2. One of the anterior sacral foramina.—3. Ala of sacrum.—
4. Articular process or cornu of sacrum.

*Fig. 2. SACRUM (posterior surface).*

1. Crest.—2. A posterior sacral foramen.—3. Superior aperture of the sacral canal.—4. Inferior aperture.

*Fig. 3. COCCYX (anterior surface).*

1. Cornu of Coccyx.

*Fig. 4. OS INNOMINATUM (external surface).*

1. Dorsum.—2. Superior curved line.—3. Inferior curved line.—4. Superior and posterior iliac spine, terminating the crest behind.—5. Posterior and inferior iliac spine.—6. Great sciatic notch.—7. Spine of the ischium.—8. Lesser sciatic notch.—9. Tuberosity of ischium.—10. Acetabulum.

*Fig. 5. OS INNOMINATUM (internal surface).*

1. Iliac fossa.—2. Auricular articulation formed by a cartilaginous surface, and eminence for ligamentous attachments.—
3. Crest of ilium.—4. Anterior superior iliac spine.—5. Anterior and inferior iliac spine.—6. Ilio-pectineal eminence and line.—
7. Pubes and symphysis pubis.—8. Junction of rami of pubes and ischium.—9. Obturator foramen.

*Fig. 6. PELVIS.*

This formed behind by the sacrum and coccyx, at the sides and in front by the ossa innominata.

1. Ilio-pectineal eminence.—2. Horizontal ramus of pubes.—
3. Pubic arch.—4. Inlet of pelvis.

PLATE X.

OSTEOLOGY, PLATE X.

*Fig. 1. SCAPULA (posterior surface).*

1. Supra-spinous fossa.—2 and 3. Spine and acromion process.  
—4. Infra-spinous fossa.—5. Coracoid process.—6. Supra-scapular notch.

*Fig. 2. SCAPULA (anterior surface).*

1. Venter.—2. Spine, terminating in the acromion.—3. Coracoid process.

*Fig. 3. SCAPULA, SEEN FROM ITS EXTERNAL OR AXILLARY BORDER.*

1. Axillary border.—2. Glenoid cavity, overhung by the coracoid process.

*Fig. 4. HUMERUS, SEEN FROM THE FRONT.*

1. Head and neck of humerus.—2. Lesser tuberosity.—3. Greater tuberosity.—4. Bicipital groove.—5. Anterior border of humerus.—6. Coronoid fossa.—7. Internal condyle.—8. Trochlear surface.—9. Capitellum.—10. Internal condyle.

*Fig. 5. HUMERUS (posterior surface).*

1. Anatomical neck.—2. Surgical neck.—3. Posterior surface.—4. Olecranon fossa.

*Fig. 6.*—Superior articular extremity of humerus, comprising the head and two tuberosities.

*Fig. 7.*—Inferior articular extremity, comprising the trochlea, capitellum, external and internal condyles.

*Fig. 8. RADIUS AND ULNA PLACED IN NATURAL POSITION AND SEEN FROM BEHIND.*

1. Ulna.—2. Radius.

*Fig. 9. SUPERIOR EXTREMITY OF ULNA (anterior view).*

1. Greater sigmoid notch.—2. Lesser sigmoid notch.

*Fig. 10. EXTERNAL VIEW OF THE UPPER EXTREMITY OF ULNA.*

1. Olecranon.—2. Coronoid process.—3. Lesser sigmoid notch.

*Fig. 11. INTERNAL VIEW OF THE SUPERIOR EXTREMITY OF ULNA.*

*Fig. 12. SUPERIOR EXTREMITY OF RADIUS.*

1. Head.—2. Neck.—3. Bicipital tuberosity.

*Fig. 13. INTERIOR ARTICULAR EXTREMITY OF RADIUS, SEEN FROM BELOW.*

*Fig. 14. INFERIOR EXTREMITIES OF THE TWO BONES OF THE FORE ARM.*

1. Head of ulna.—2. Its styloid process.—3. Styloid process of radius.

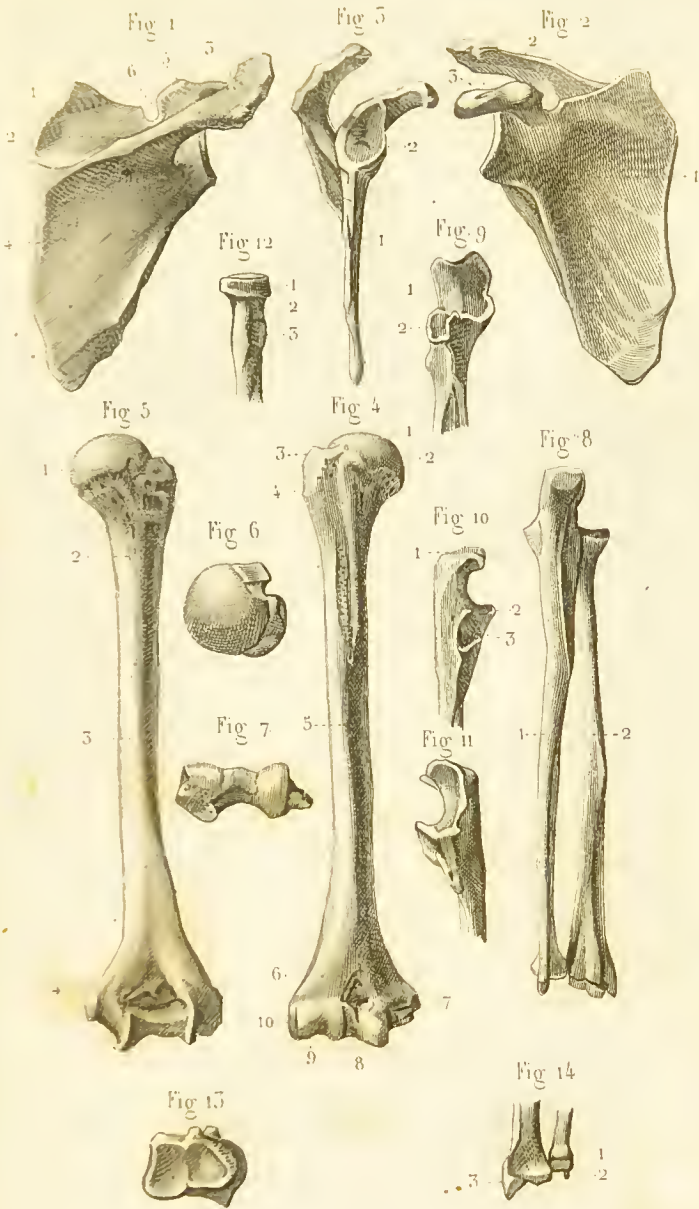










Fig. 5.



Fig. 1.

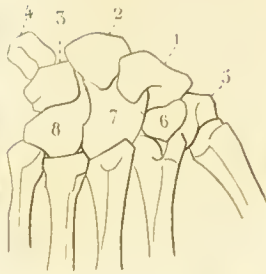


Fig. 2



Fig. 4.



Fig. 5.



Fig. 6.



Fig. 11.



Fig. 8.



Fig. 9



Fig. 10



Fig. 7.



## PLATE XI.

### OSTEOLOGY, PLATE XI.

#### *Fig. 1. BONES OF CARPUS, SEEN FROM BEHIND.*

There are two rows of carpal bones. In the first row,—  
1. The scaphoid.—2. Semi-lunar.—3. Cuneiform.—4. Pisiform.  
In the second,—5. Trapezium.—6. Trapezoid.—7. Os magnum.  
—8. Unciform.

#### *Fig. 2. BONES OF THE HAND, SEEN IN FRONT.*

1. Bones of carpus.—2. Second metacarpal bone, the last three  
are parallel and the first is placed aslant.—3. First phalanx of  
index finger.—4. Second phalanx.—5. The third phalanx. The  
thumb has no middle phalanx.

#### *Fig. 3. BONES OF THE HAND, SEEN FROM BEHIND.*

#### *Fig. 4. PATELLA, SEEN FROM BEFORE.*

#### *Fig. 5. PATELLA, SEEN FROM BEHIND.*

1. Articular facets,

#### *Fig. 6. FEMUR (anterior surface).*

*greater*

1. Head.—2. Neck.—3. Trochanter major.—4. Trochanter  
minor.—5. Anterior portion of the inferior articular extremity,  
or trochlea.

#### *Fig. 7. FEMUR, SEEN FROM BEHIND.*

1. Digital fossa.—2. Inter-trochanteric line.—3. Insertion of  
gluteus maximus.—4. Linea aspera, in which is the foramen  
for the nutrient artery.—5. Internal tuberosity.—6. External  
tuberosity.—7. Internal condyle.—8. External condyle.

#### *Fig. 8. SUPERIOR EXTREMITY OF FEMUR, SEEN FROM ABOVE.*

#### *Fig. 9. INFERIOR EXTREMITY OF FEMUR, SEEN FROM BELOW.*

#### *Fig. 10. TIBIA, SEEN FROM BEFORE.*

1. Spine.—2. External tuberosity.—3. Internal tuberosity.—  
4. Tubercle.—5. Shaft.—6. Internal malleolus.

#### *Fig. 11. RIGHT FIBULA, SEEN FROM BEFORE.*

1. Head.—2. Inferior extremity or external malleolus.—  
3. Articular facet.

## PLATE XII.

### OSTEOLOGY, PLATE XII.

*Fig. 1.* SUPERIOR ARTICULAR EXTREMITY OF TIBIA, SEEN FROM ABOVE.

1. Spine.—2. Internal articular facet.—3. External articular facet.

*Fig. 2.* INFERIOR ARTICULAR EXTREMITY OF TIBIA, SEEN FROM BELOW.

This presents two portions, a horizontal and a vertical, for the astragalus, corresponding with its articular surfaces.

*Fig. 3.* THE TWO BONES OF THE LEG IN THEIR NATURAL POSITION, SEEN FROM BEHIND.

1. They form below the joint (hinge) which articulates with the astragalus. This joint is formed by the tibia internally and the fibula externally (the two malleoli).

*Fig. 4.* SIDE VIEW OF THE BONES OF THE LEFT LEG (*fibular aspect*).

*Fig. 5.* BONES OF THE TARSUS, SEEN FROM ABOVE.

These bones are arranged in two rows. In the first,—1. The astragalus.—2. The os calcis. In the second,—3. The scaphoid.—4. The internal cuneiform.—5. The middle cuneiform.—6. The external cuneiform.—7. The cuboid.

*Fig. 6.* RIGHT TARSUS, SEEN FROM THE OUTER SIDE.

1. Greater process of os calcis.—2. Canal for calcaneo-astragaloid (interosseous) ligament.

*Fig. 7.* RIGHT TARSUS, SEEN FROM THE INNER SIDE.

1. Sustentaculum tali.—2. Head of astragalus.

*Fig. 8.* OS CALCIS (*superior surface*).

*Fig. 9.* BONES OF THE RIGHT FOOT, SEEN FROM ABOVE.

This drawing shows successively,—1. The tarsal bones.—2. The five metatarsal.—3. The five first phalanges.—4. The second phalanges.—5. The five last phalanges, or ungual. The great toe has no middle phalanx.

*Fig. 10.* BONES OF THE FOOT, SEEN FROM BELOW.

1. Internal tuberosity of os calcis.—2. External tuberosity.

Fig 5



Fig 1



Fig 4



Fig 7

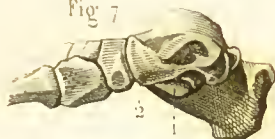


Fig 6



Fig 8



Fig 2



Fig 9



Fig 3

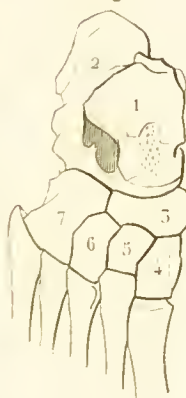


Fig 10







Fig. 1

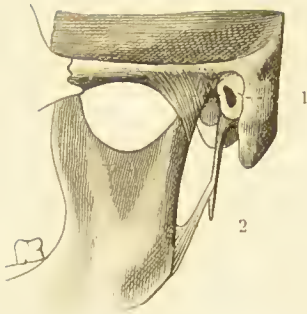


Fig. 2



Fig. 3.



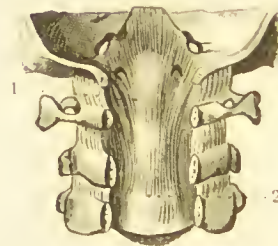
Fig. 4.



Fig 6.



Fig 5.





## PLATE XIII.

### ARTICULATION, PLATE I.

*Figs. 1, 2, and 3.* TEMPORO-MAXILLARY ARTICULATION.

*Fig. 1.*—1. External lateral ligament. — 2. Stylo-maxillary ligament.

*Fig. 2.*—1. Internal lateral ligament. — 2. Stylo-maxillary ligament.

*Fig. 3.* TEMPORO-MAXILLARY ARTICULATION, SEEN FROM THE OUTER SIDE, AND OPENED Laterally.

1. Inter-articular fibro-cartilage. — 2. Stylo-maxillary ligament.

*Fig. 4.*—1. Anterior occipito-atloid ligament, composed of a middle fasciculus, strong and straight, and of a posterior fasciculus, thinner but broader.—2. Commencement of the common anterior vertebral ligament.

*Fig. 5.*—1. Occipito-axoid ligament.—2. Commencement of the posterior common ligament of the vertebræ.

The anterior portion of the foramen magnum and a portion of the vertebral canal have been removed.

*Fig. 6.*—1. Posterior occipito-atloid ligament.—2. Opening in the ligament for the vertebral artery. 3. Ligament uniting the laminae of the two first vertebræ, taking the place of the ligamentum subflavum.

## PLATE XIV.

### ARTICULATION, PLATE II.

*Fig. 1.*—1. Vertical portion of the occipito-axoid ligament.—2. One of the odontoid or check ligaments.—3. Transverse ligament composed of two fasciculi.—4. Commencement of the posterior common ligament.

*Fig. 2.* ARTICULATION OF THE BODIES OF THE VERTEBRÆ.

1. Middle portion of the anterior common ligament.—2 and 3. Lateral portions of the same.—4. Stellate ligament of costo-vertebral articulation.

*Fig. 3.*—Vertebral canal opened to show, — 1. The posterior common ligament.

*Fig. 4.* A VERTEBRA, SEEN ON ITS SUPERIOR SURFACE.

1. Fibres of the inter-vertebral ligament or disc.—2. Gelatinous substance of this disc.

*Fig 5.* VERTEBRAL CANAL, OPENED TO SHOW SOME OF THE LIGAMENTA SUBFLAVA ATTACHED TO THE LAMINÆ.

1. Ligamentum subflavum.

*Fig. 6.*—1. Portion of the supra-spinous ligament.—2. Inter-spinous ligament.

Fig 1.



Fig 2

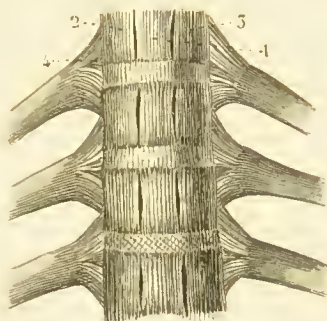


Fig 3.



Fig 4

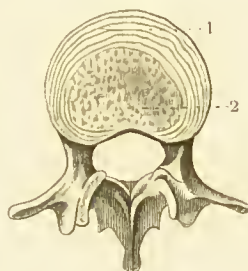


Fig 5

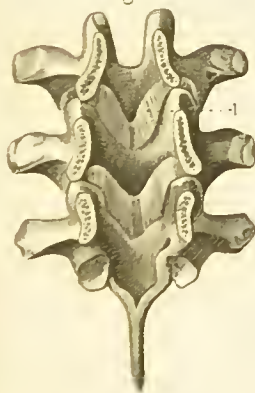


Fig 6.



Fig 1.

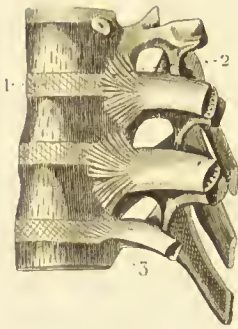


Fig 2



Fig. 4.

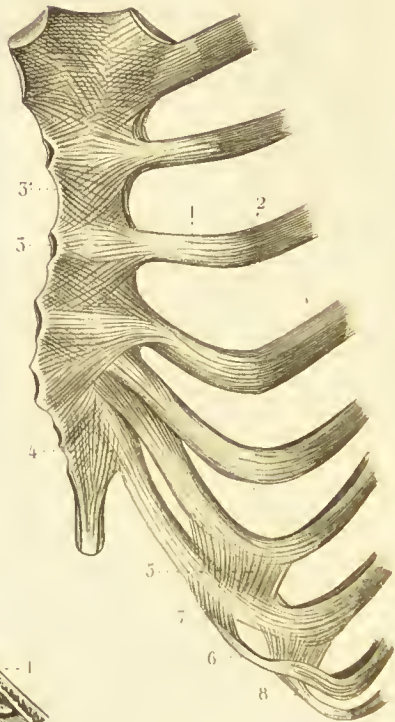


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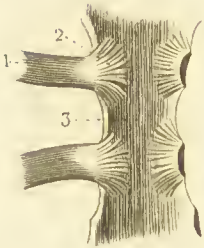
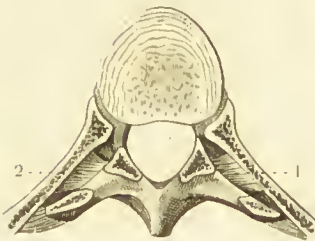


Fig 5



## PLATE XV.

### ARTICULATION, PLATE III.

#### *Fig. 1.* COSTO-VERTEBRAL ARTICULATION.

1. An inter-vertebral disc, the interlacing fibres are seen extending from one vertebra to another.—2. Stellate ligament of the costo-vertebral articulation.—3. Inter-osseous ligament of the costo-vertebral articulation.

#### *Fig. 2.* COSTO-TRANSVERSE ARTICULATION.

1. Supra-spinous ligament. — 2. Posterior costo-transverse ligament.—3. Anterior costo-transverse ligament.—4. Inferior costo-transverse ligament.

*Fig. 3.* A vertebra, and posterior portion of a rib cut horizontally showing—1 and 2. The anterior costo-transverse ligaments.

#### *Fig. 4.* COSTO-STERNAL AND INTER-COSTAL ARTICULATIONS.

1. Costal cartilage.—2. Union of this cartilage with the rib.—3. Anterior costo-sternal ligament. — 3. Anterior membrane covering the sternum formed by the interlacing of the anterior ligaments.—4. Costo-xiphoid ligament.—5, 6, 7 & 8. Inter-costal ligaments.

#### *Fig. 5.* POSTERIOR VIEW OF COSTO-STERNAL LIGAMENTS.

1. Cartilage of rib.—2. Posterior ligament. — 3. Posterior membrane covering the sternum.

## PLATE XVI.

### ARTICULATION, PLATE IV.

*Figs. 1, 2, 3, and 4.* ARTICULATION OF PELVIS.

*Fig. 1.*—1. Termination of anterior common ligament, extending as far as the third sacral vertebra.—2. Fibres forming the anterior membrane covering the sacrum.—3. Anterior sacro-coccygeal ligament.—4. Ilio-lumbar ligament.—5. Sacro-vertebral ligament.—6. Anterior sacro-iliac ligament.—7. Great sacro-sciatic ligament.—8. Lesser sacro-sciatic ligament.

*Fig. 2.*—1. Inferior part of supra-spinous ligament.—2. Posterior sacro-coccygeal ligament.—3. Ilio-lumbar ligament.—4. Posterior sacro-iliac ligament.—5. Sacro-spinous ligament.—6. Great sacro-sciatic ligament.—7. Lesser sacro-sciatic ligament.

*Fig. 3.* SYMPHYSIS PUBIS, SEEN IN FRONT.

1. Interlacing fibres of anterior public ligament.—2. Superior public ligament.—3. Sub-public ligament (of which the anterior layer of the triangular ligament is a continuation).—4. Obturator membrane.—5. Foramen for the passage of the obturator artery and nerve.

*Fig. 4.* POSTERIOR VIEW OF SYMPHYSIS PUBIS.

Fig 1

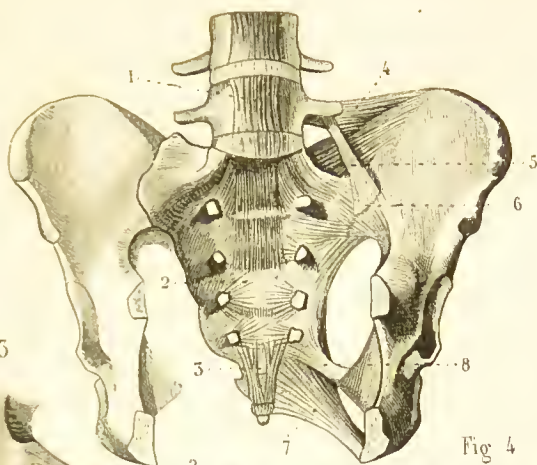


Fig 5

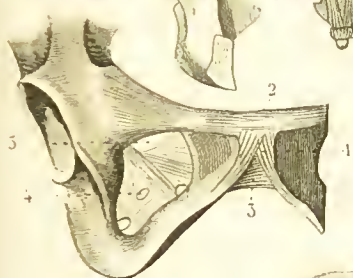


Fig 4



Fig 2

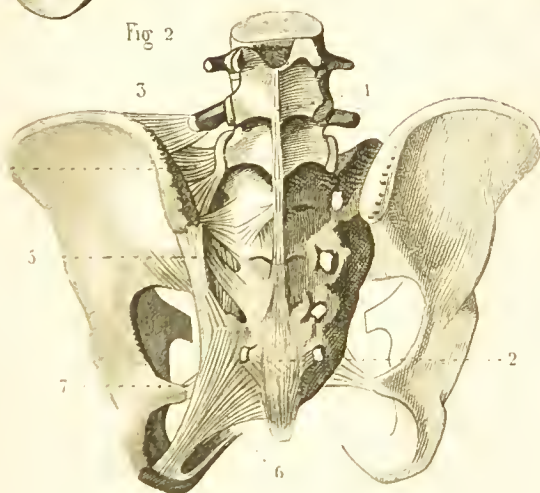










Fig. 2

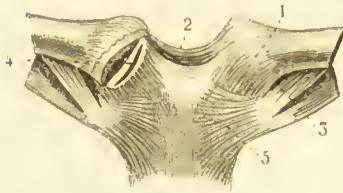


Fig 1.

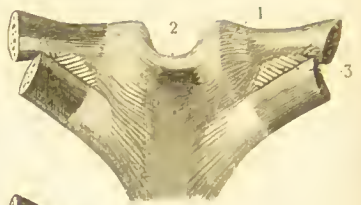


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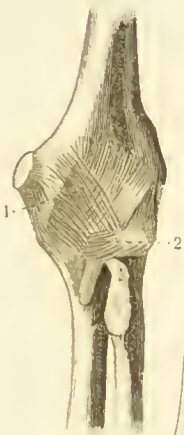


Fig 3.

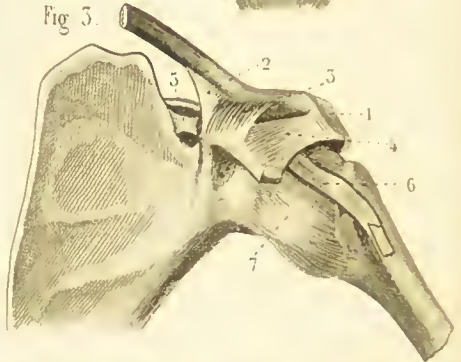


Fig. 4

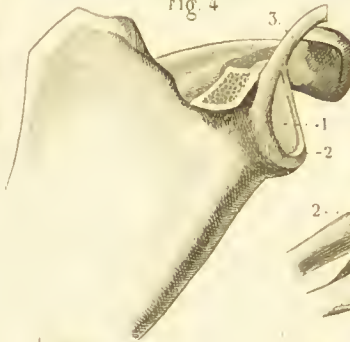


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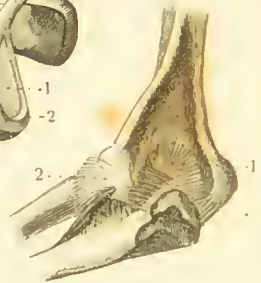


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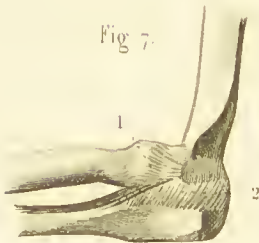
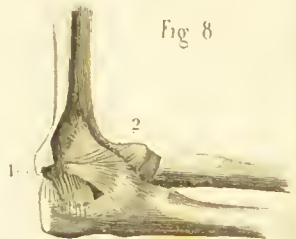


Fig 8



## PLATE XVII.

### ARTICULATION, PLATE V.

*Fig. 1.* STERNO-CLAVICULAR ARTIOULATION, SEEN FROM BEHIND.

1. Posterior ligament.—2. Fibres extending from one clavicle to the other, forming the inter-clavicular ligament.—3. Costo-clavicular ligament.

*Fig. 2.* STERNO-CLAVICULAR ARTICULATION, SEEN FROM THE FRONT.

1. Anterior ligament.—2. Inter-clavicular ligament.—3. Costo-clavicular ligament.—4. Articulation opened, showing the inter-articular fibro cartilage and two synovial membranes.—5. Anterior stellate ligament.

*Fig. 3.* SCAPULO-CLAVICULAR AND SCAPULO-HUMERAL ARTICULATIONS.

1. Acromio-clavicular articulation.—2 and 3. Coraco-clavicular ligament, formed by conoidal and trapezoidal fasciculi.—4. Coraco-acromial ligament.—5. Coracoid (transverse) ligament.—6. Tendon of biceps enclosed in its capsule.—7. Capsular ligament of the scapulo-humeral articulation.

*Fig. 4.*—1. Glenoid cavity.—2. Glenoid ligament.—3. Tendon of biceps continuous with this ligament.

*Fig. 5.* ELBOW JOINT, SEEN FROM THE FRONT.

1. Anterior ligament, composed of fasciculi passing in various directions continuous with the lateral ligament.—2. Annular ligament of radius.

*Fig. 6.* ELBOW JOINT, SEEN FROM BEHIND.

1. Posterior ligament, composed of several fasciculi.—2. External lateral ligament.

*Fig. 7.* ELBOW JOINT, SEEN FROM BELOW.

1. External lateral ligament.—2. Part of posterior ligament.

*Fig. 8.* ELBOW JOINT, SEEN FROM ABOVE.

1. Internal lateral ligament.—2. External lateral ligament.

## PLATE XVIII.

### ARTICULATION, PLATE VI.

*Fig. 1.* ARTICULATION OF THE BONES OF THE FORE-ARM.

1. Inter-osseous ligament.—2. Round ligament, or ligament of Weibrecht.—3. Annular ligament of radius.—4. Anterior inferior radio-ulnar ligament.

*Fig. 2.*—1. Superior extremity of ulna.—2. Round or orbicular ligament which holds the head of the radius in position.

*Fig. 3.*—1. Inferior extremity of the two bones, looking from below, to show the triangular ligament.

*Fig. 4.* ANTERIOR LIGAMENTS OF THE LOWER END OF THE RADIUS AND ULNA, OF THE CARPUS AND METACARPUS.

1. Anterior inferior radio-ulna ligament.—2. Anterior radio-carpal ligament.—3. External lateral ligament.—4. Internal lateral ligament.—5. Pisiform bone, to which several ligaments are attached.—5'. Uneiform process of the uneiform bone.—6. Os magnum, to which most of the ligamentous fibres of the carpus and metacarpus are attached.—7. Capsular ligament of trapezium, and first metacarpal bone.—8. Palmar ligaments, uniting the superior extremities of the four internal metacarpal bones together.—9. Common transverse palmar ligament.—10. Lateral ligament of the metacarpo-phalangeal articulation of the thumb.

*Fig. 5.* POSTERIOR LIGAMENTS OF THE LOWER END OF THE RADIUS AND ULNA, CARPUS AND METACARPUS.

1. Posterior radio-carpal ligament.—2. External lateral ligament.—3. Internal lateral ligament.—4. Posterior ligament of carpus.—5. Posterior carpo-metacarpal ligaments.—6. Ligament between the trapezium and second metacarpal bone.—7. Dorsal ligaments uniting the four internal metacarpal bones.

*Fig. 6.*—Lateral ligaments of the metacarpo-phalangeal articulation and phalangeal articulations.

*Fig. 7.*—1 and 2. Anterior ligaments of the phalangeal articulation.

*Fig. 8.*—Lateral ligaments of the metacarpo-phalangeal and phalangeal articulations.

Fig 1.



Fig 2



Fig 3



Fig 4.

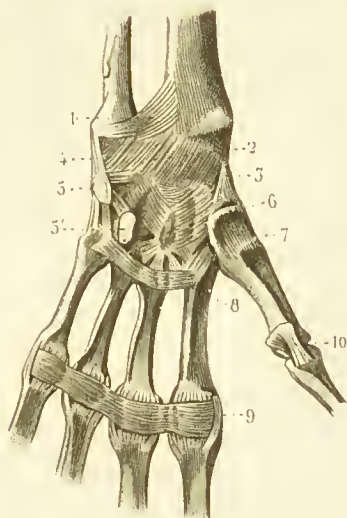


Fig 6



Fig 7



Fig 5.

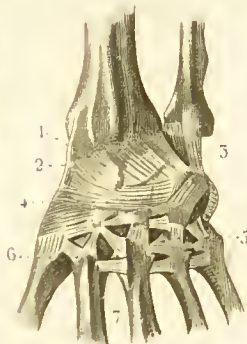


Fig 8.



Fig 1

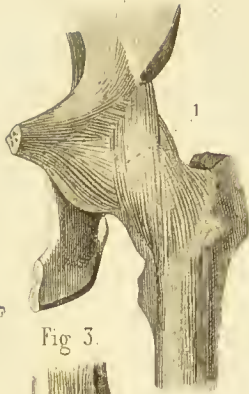


Fig 2



Fig 3.

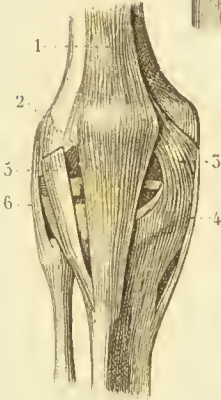


Fig 7.

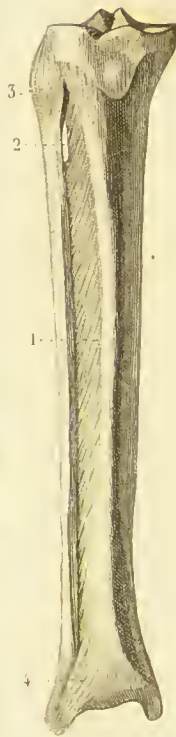


Fig 4

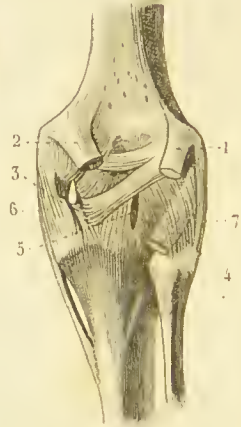


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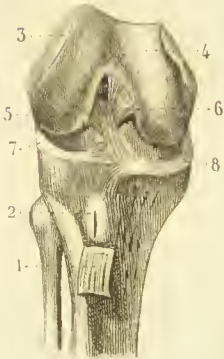


Fig 6.





## PLATE XIX.

### ARTICULATION, PLATE VII.

#### *Fig. 1.* COXO-FEMORAL ARTICULATION.

1. Capsular ligament.

#### *Fig. 2.* COXO-FEMORAL ARTICULATION WITH THE CAPSULAR LIGAMENT REMOVED.

1. Cotyloid ligament.—2. Reflected tendon of rectus femoris, continuous with this ligament.—3. Ligamentum teres.

#### *Fig. 3.* LIGAMENTS OF KNEE-JOINT.

1. Tendon of quadriceps extensor femoris.—2. Ligamentum patellæ.—3. Accessory band from vastus internus.—4. Internal lateral ligament.—5. Process of *fascia lata* serving as a ligament.—6. External lateral ligaments.

#### *Fig. 4.* LIGAMENTS OF KNEE-JOINT, SEEN FROM BEHIND.

- 1 and 2. Cut tendons of origin of the gastrocnemei.—3. Cut tendon of semi-tendinosus, giving off three fasciculi.—4. Tendon of popliteus.—5. Ligamentum posticum Winslowii.—6. Posterior border of internal lateral ligament.—7. External lateral ligaments.

- Fig. 5.*—1. Ligamentum patellæ, cut and turned down.—2. Bursa.—3 and 4. External and internal condyles of femur.—5 and 6. Anterior and posterior crucial ligaments.—7 and 8. Semi-lunar fibro-cartilages.

#### *Fig. 6.* SUPERIOR EXTREMITY OF THE TIBIA, SEEN FROM ABOVE.

- 1 and 2. Anterior and posterior crucial ligaments.—3. Internal semi-lunar cartilage.—4. External semi-lunar cartilage.

#### *Fig. 7.* TIBIO-FIBULAR ARTICULATION, SEEN FROM THE FRONT.

1. Inter-osseous ligament.—2. Opening, giving passage to anterior tibial vessels.—3. Anterior superior tibio-fibular ligament.—4. Anterior inferior tibio-fibular ligament.

## PLATE XX.

### ARTICULATION, PLATE VIII.

*Fig. 1.* TIBIO-TARSAL ARTICULATION, SEEN FROM THE FRONT.

1. Anterior inferior tibio-fibular articulation.—2. Anterior ligament of tibio-tarsal articulation.—3. Internal lateral ligament.—4. External lateral ligament (anterior fasciculus).—5. External lateral ligament (middle fasciculus).

*Fig. 2.* TIBIO-TARSAL ARTICULATION, SEEN FROM BEHIND.

1. Posterior and inferior tibio-fibular ligament.—2. Accessory fibres extending between the two malleoli.—3. Posterior ligament.—4 and 5. Fasciculi of internal lateral ligament.—6. External lateral ligament (posterior fasciculus).—7. External lateral ligament (middle fasciculus).—8. Internal calcaneo-astragaloid ligament.—9. Posterior calcaneo-astragaloid ligament.

*Fig. 3.* DORSAL LIGAMENTS OF TARSUS AND METATARSUS.

1 and 2. Ligamentous fasciculi, situated in the fossa between the os calcis and astragalus.—3. Calcaneo-scaphoid and calcaneo-cuboid ligaments, together forming a Y.—4. Superior calcaneo-cuboid ligament.—5. Scaphoid bone, to which are attached ligaments for the three cuneiform and cuboid bones.—6. Dorsal ligaments of the cuneiform bones.—7. Ligament of internal cuneiform and first metatarsal bone.—8. Second metatarsal bone, to which are attached three ligaments for the cuneiform bones.—9. Cuboid bone, to which are attached ligaments for the third, fourth, and fifth metatarsal bones.—10. Ligament of the third cuneiform and third metatarsal bones.—11. Ligaments uniting the posterior extremities of the metatarsal bones.

*Fig. 4.* PLANTAR LIGAMENTS OF TARSUS AND METATARSUS.

1. Calcaneo-scaphoid ligament.—2. Calcaneo-cuboid ligament.—3. Fasciculi, being a continuation of the tendon of the tibialis posticus musc.—4. Transverse ligaments.—5. Ligament of internal cuneiform and first metatarsal bone.—6. Transverse ligament, uniting the posterior extremities of the metatarsal bones.—7. Transverse ligament, uniting the anterior extremities of the metatarsal bones.

*Fig. 5.*—1. Sesamoid bones of the metacarpo-phalangeal joint of the great toe.—2. Anterior ligament of the phalangeal joint.

*Fig. 6.*—1 and 2. Lateral ligaments of the phalangeal joint.

*Fig. 7.*—1. Lateral ligament of the phalangeal joint.



Fig 1



Fig 3



Fig 6



Fig 2



Fig 7



Fig 5

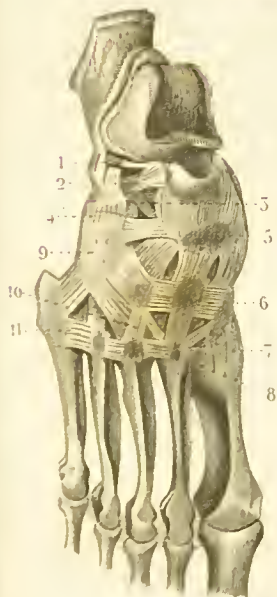


Fig 4

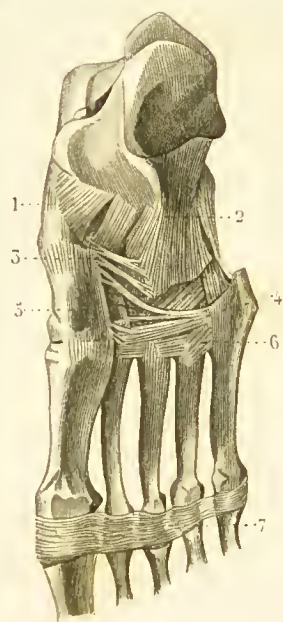


Fig 1.

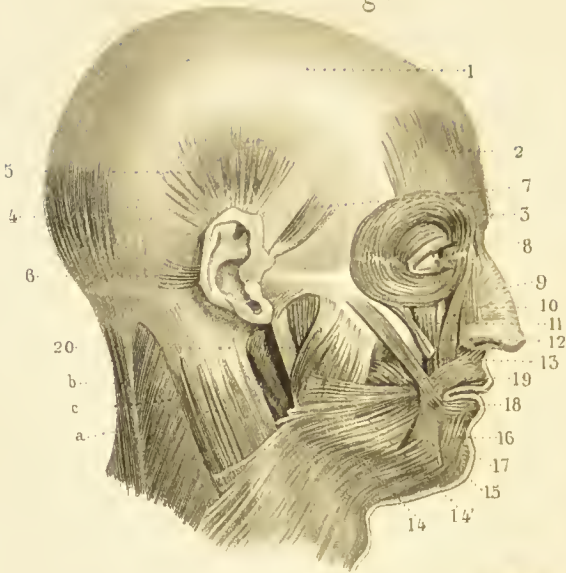


Fig 3.



Fig 2.



## PLATE XXI.

### MYOLOGY, PLATE I.

*Fig. 1.* RIGHT SIDE OF THE HEAD, SHOWING THE SUPERFICIAL MUSCLES.

A. Sterno-cleido-mastoid, and—B. Trapezius, united above by an aponeurosis.—C. Splenius.

1. Epicranial aponeurosis.—2 and 3. Anterior belly of occipito-frontalis and pyramidalis nasi.—4. Posterior belly of occipito-frontalis.—5. Atollens aurem.—6. Retrahens aurem.—7. Attrahens aurem.—8. Orbicularis palpebrarum.—9. Triangularis nasi.—10. Levator labii superioris et alæ nasi.—11. Levator labii superioris proprius.—12. Zygomaticus minor.—13. Zygomaticus major.—14. Platysma myoides.—14'. Risorius of Sauterius.—15. Depressor anguli oris.—16. Depressor labii inferioris.—17. Levator menti.—18. Orbicularis oris.—19. Part of buccinator.—20. Masseter.

*Fig. 2.* RIGHT SIDE OF THE HEAD, SHOWING THE UNDERLYING MUSCLES.

A. Masseter cut.—B. External lateral ligament of the temporo-maxillary articulation.

1. Temporal muscle.—2. Corrugator supercilii.—3. Superior oblique and its pulley.—4. Levator palpebræ superioris.—5. Triangularis nasi.—6. Depressor alæ nasi.—7. Levator anguli oris.—8. Buccinator, pierced by the duct of the parotid gland (Steno's), continuous with the orbicularis oris.—9. Depressor labii inferioris (quadratus menti).—10. Levator menti.

*Fig. 3.* ANTERIOR PORTION OF THE RIGHT ORBIT.

1. Anterior part of the globe of the eye.—2 and 2'. Eyelids cut and drawn forward.—3 and 3'. Two fasciculi of the lachrymal muscle of Horner (tensor tarsi).

## PLATE XXII.

### MYOLOGY, PLATE II.

MUSCLES OF THE ORBIT. DEEP MUSCLES OF THE FACE AND  
SUPERFICIAL MUSCLES OF THE NECK, ETC.

*Fig. 1.* MUSCLES OF THE ORBIT.—DEEP MUSCLES OF THE FACE,  
RIGHT SIDE.

1. Optic nerve.—2. Aponeurotic origin of the muscles of the eyeball.—3. Levator palpebræ, cut and turned back.—4. Obliquus superior, passing through its pulley.—5. Rectus superior.—6. External rectus, showing its two heads of origin.—7. Obliquus inferior.—8. Inferior rectus and tendon of Zinn.—9. Superior portion of the orbicularis oris.—10. Inferior portion of the same.—11. Buccinator.—12. Quadratus menti.—13. External pterygoid. The superior fasciculus is inserted into the inter-articular fibro cartilage of the temporo-maxillary joint.—14. Internal pterygoid.

*Fig. 2.* EYEBALL, SEEN FROM BEHIND.

1, 1, 1, 1. Recti muscles, showing the expansion of their tendons.—2. Superior oblique, and—2'. Inferior oblique. The tendons of these two muscles are continuous.

*Fig. 3.* SUPERFICIAL MUSCLES OF THE NECK, RIGHT SIDE.

1. Platysma myoides.—2. Risorius of Santorini.—3. Sternocleido-mastoid.—4. Aponeurosis of sterno-cleido-mastoid.—5. Trapezius.—6. Splenius capitis.—7. Pectoralis major.

Fig. 1



Fig. 2.

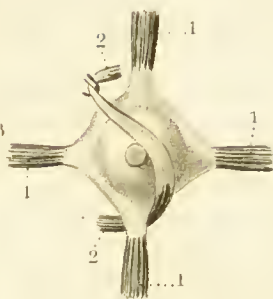


Fig. 3.

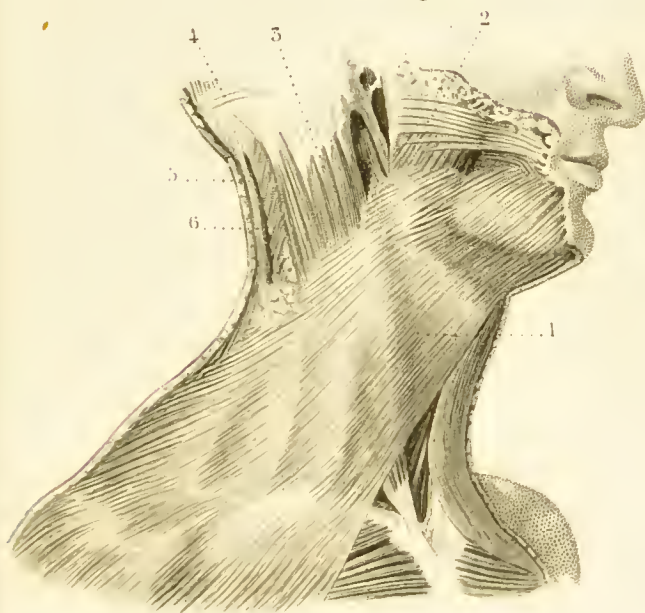








Fig 1.

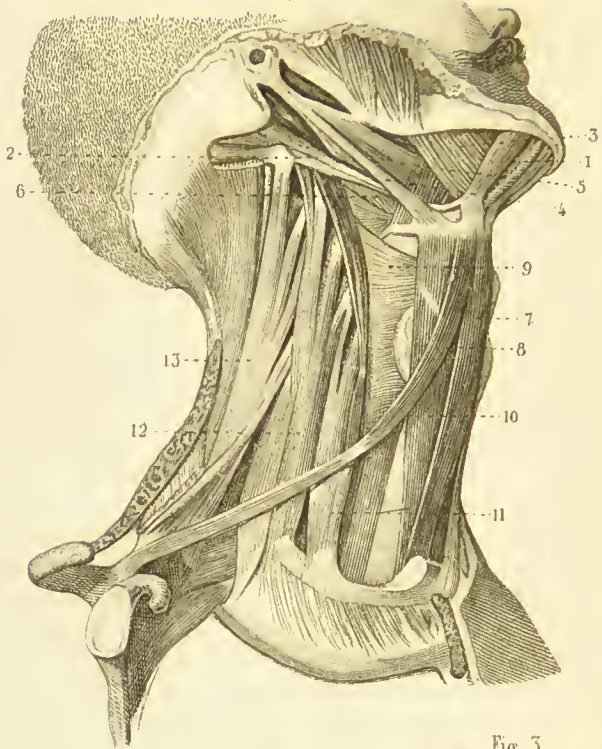


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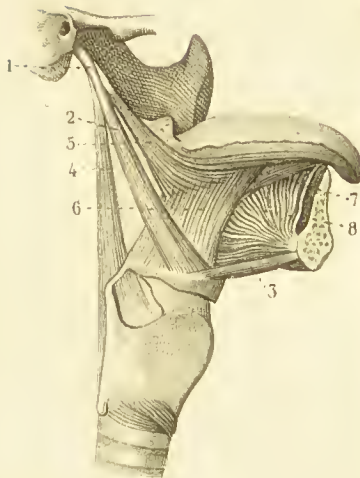
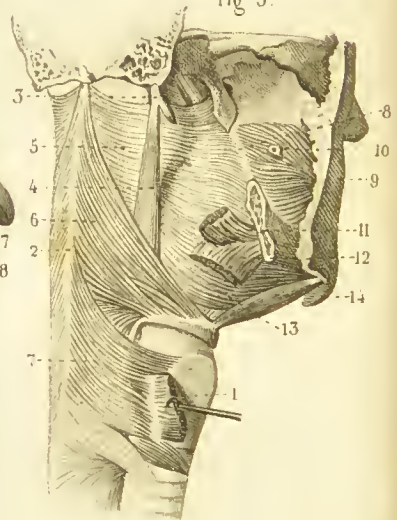


Fig 3.





## PLATE XXIII.

### MYOLOGY, PLATE III.

*Fig. 1. MUSCLES ATTACHED TO THE HYOID BONE (right side).*

1. Anterior, and—2. Posterior bellies of the digastric.—3. Mylo-hyoid.—4. Stylo-hyoid.—5. Stylo-glossus.—6. Stylo-pharyngeus.—7. Sternho-hyoid.—8. Omo-hyoid.—9. Thyro-hyoid.—10. Sterno-thyroid.—11. Scalenus anticus.—12. Scalenus posticus.—13. Levator anguli scapulæ.

*Fig. 2. MUSCLES OF THE TONGUE (right side).*

1. Styloid process.—2. Stylo-hyoid.—3. Genio-hyoid.—4. Stylo-pharyngeus.—5. Stylo-glossus.—6. Hyo-glossus.—7. Lingualis.—8. Genio-hyo-glossus.

*Fig. 3. MUSCLES OF THE RIGHT SIDE OF THE PHARYNX, SEEN FROM BEHIND.*

1. Sterno-thyroid.—2. Posterior median raphé.—3. Styloid process.—4. Stylo-pharyngeus.—5. Superior constrictor.—6. Middle constrictor.—7. Inferior constrictor.—8. Aponeurosis, common to the buccinator and superior constrictor.—9. Buccinator.—10. Duct of the parotid, or Steno's duct.—11 and 12. Stylo and hyo-glossi muscles, cut.—13. Posterior fibres of the genio-hyo-glossus, continuous with the superior constrictor of the pharynx.—14. Genio-hyoid.

## PLATE XXIV.

### MYOLOGY, PLATE IV.

#### *Fig. 1. MUSCLES OF THE PHARYNX.*

The base of the cranium is cut vertically, in the direction of two lines, extending from the sides of the bases of the mastoid processes to the anterior part of the vertebral column, passing in front of the occipito-atloid articulation (Bichats' section).

1. Interual pterygoid muscles.—2. Transverse fibres of the œsophagus.—3. Inferior constrictor.—4. Middle coustrictor.—5. Superior coustrictor.—6. Stylo-pharyngeus.—7. Styloid process, showing the origin of the preceding muscles, and the stylo-hyoid and stylo-glossus cut.—8. Petro-pharangeus.

#### *Fig. 2. MUSCLES OF THE SOFT PALATE.*

1. Pharyngeal fascia (position of sinus of Morgagni).—2. Part of superior coustrictor.—3. Portiou of the same.—4 and 5. Fibres of the middle and inferior constrictors.—6. Fibres of stylo-pharyngeus, inserted between the superior and middle constrictors.—7. Palato-pharyngeus, divided into three fasciculi.—8. Palato-glossus.—9. Azygos uvulæ, consisting of two fasciculi.—10. Levator palati, in front of which are seen some fibres of the tensor palati.—11. Arytenoideus.—12. Crico-aryteuioideus posticus.—13. Circular fibres of the œsophagus open, showing its attachment to the cricoid cartilage.

#### *Fig. 3. DEEPER VIEW OF THE MUSCLES OF THE SOFT PALATE.*

1. Eustachian tube.—2. Levator palati.—3. Vertical portion of tensor palati.—4. Tensor palati, showing its vertical and horizontal portions, the latter passing under,—5. The hamular process of the sphenoid.—6. Azygos uvulæ.

#### *Fig. 4. MUSCLES OF THE LARYNX, SEEN FROM THE FRONT.*

1. Hyoid bone.—2. Thyroid cartilage.—3. Thyro-hyoid membrane.—4. Crico-thyroid membrane.—5. Crico-thyroid muscle.—6. Inferior coustrictor.—7. Thyro-hyoid muscle.

#### *Fig. 5. MUSCLES OF LARYNX (posterior view).*

1. Superior aperture of larynx.—2. Arytenoideus muscle.—3. Crico-arytenoideus posticus.

#### *Fig. 6. SIDE VIEW, MUSCLES OF THE LARYNX.*

The right ala of the thyroid cartilage is removed.

1. Arytenoid cartilage.—2. Crico-arytenoideus posticus.—3. Crico arytenoideus lateralis.—4. Thyro-arytenoid.

Fig. 1.

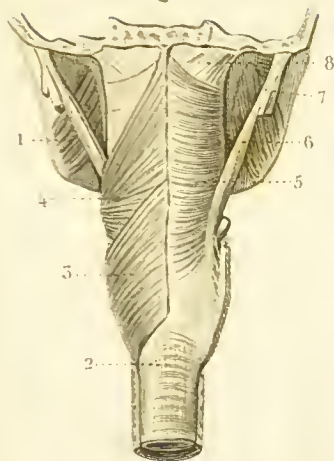


Fig. 2.

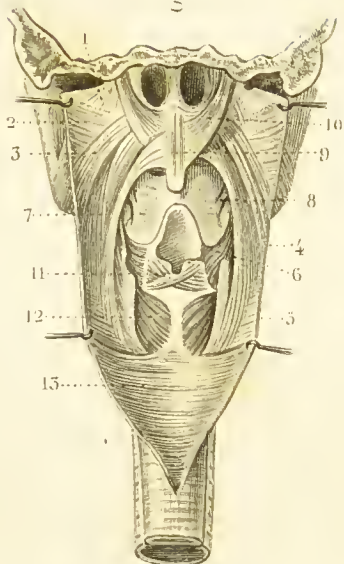


Fig. 4.



Fig. 5.

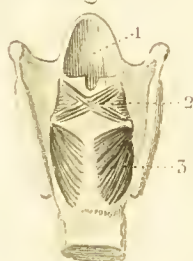


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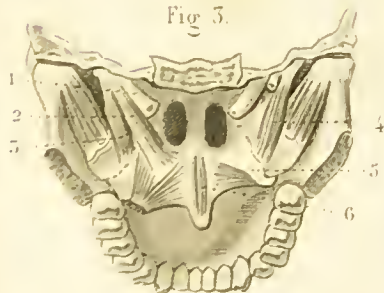
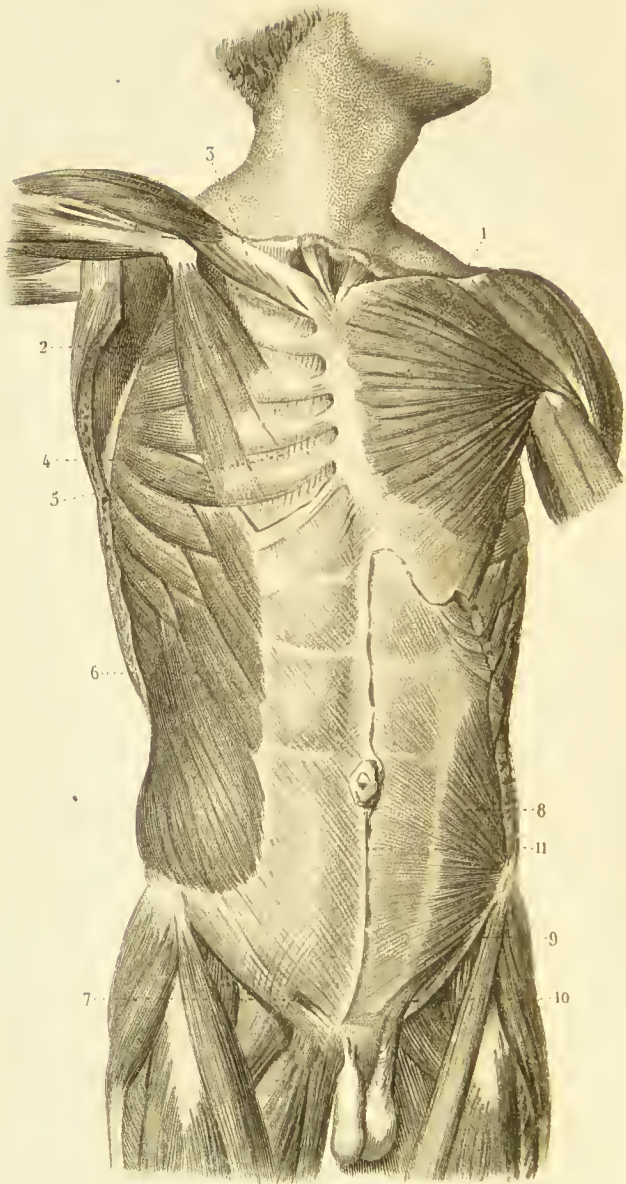


Fig. 6.









## PLATE XXV.

### MYOLOGY, PLATE V.

#### ANTERIOR SUPERFICIAL MUSCLES OF THE TRUNK.

1. Pectoralis major, separated from the deltoid by a small space.—2. Pectoralis minor.—3. Subclavius.—4. Seratus magnus. 5. Internal intercostals.—6. External oblique.—7. External abdominal ring.—8. Internal oblique.—9. Aponeurosis of the external oblique turned aside.—10. Cremaster.—11. Linea alba.

PLATE XXVI.

MYOLOGY, PLATE VI.

*Fig. 1.* MUSCLES OF THE ABDOMEN.

1. Internal oblique, the tendon of which is divided into :—
2. An anterior lamina, cut and turned back, and—3. A posterior lamina, which only goes as far as the lower fourth of the rectus muscle, forming a sheath for the other three-fourths.—
4. Transversalis, the tendon of which is divided into :—5. A superior lamina, which passes behind the rectus, and—6. An inferior, which passes in front.—7. Pyramidalis.—8. Rectus abdominis.—9. Linea alba.

*Fig. 2.* MUSCLES OF THE MALE PERINEUM.

1. Erector penis.—2. Accelerator urinæ, united by a median raphé.—3. Transversus perinei, divided into two fasciculi, a superficial and deep.—4. External sphincter.—5. Levator ani.



Fig. 1.

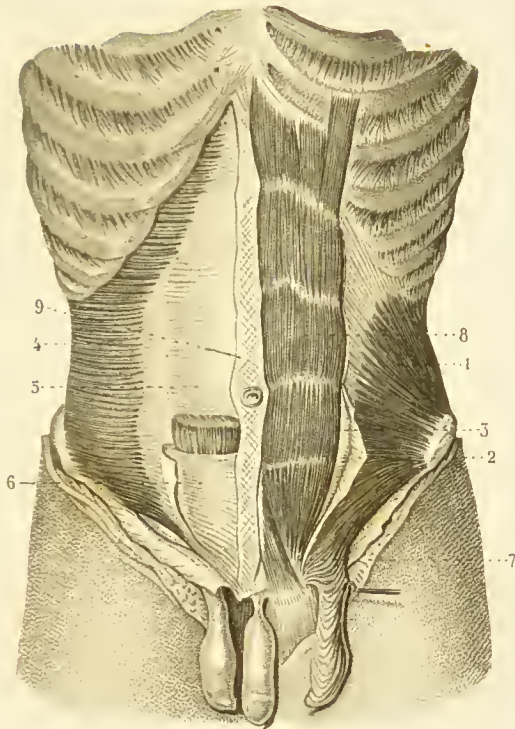


Fig. 2.

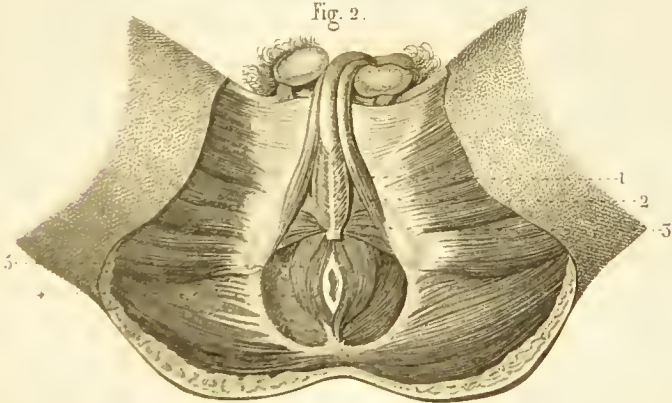


Fig. 1.

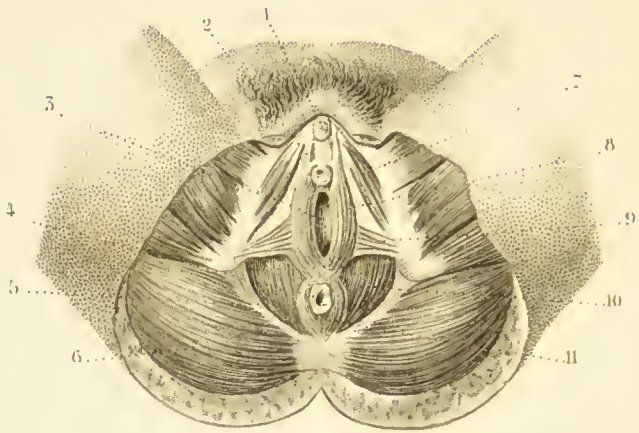


Fig. 4.

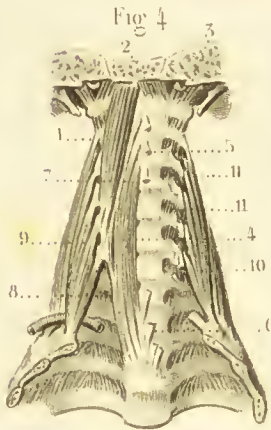


Fig. 5.

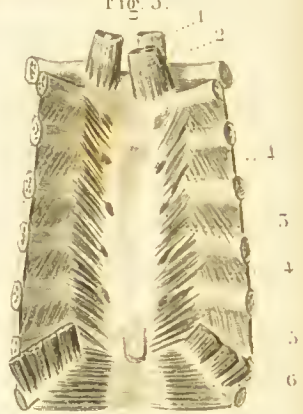
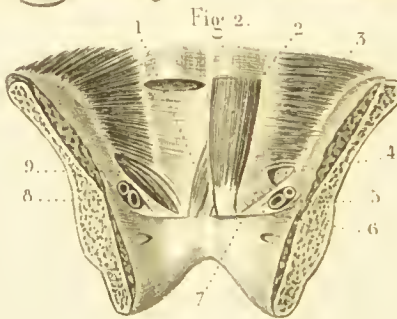


Fig. 2.



## PLATE XXVII.

### MYOLOGY, PLATE VII.

#### *Fig. 1.* MUSCLES OF THE FEMALE PERINEUM.

1. Clitoris.—2. Meatus urinarius.—3. Vulva.—4. Anus.—5. Margin of the great sacro-sciatic ligament.—6. Gluteus maximus.—7. Erector clitoridis.—8. Constrictor or sphincter vaginae.—9. Transversus perinei.—10. Levator ani.—11. External sphincter.

*Fig. 2.*—1. Pyramidalis.—2. Rectus abdominis leaving its sheath.—3. Transversalis.—4. Position of internal abdominal ring.—5. Superior orifice of the crural canal, in which are seen the femoral vessels.—6. Gimbernat's ligament.—7. Fascia transversalis.—8. Crural arch.—9. Interior of the inguinal canal, the anterior wall raised.

*Fig. 3.* MUSCLES ATTACHED TO THE POSTERIOR PART OF THE STERNUM, ETC.

1. Origin of sterno-hyoid.—2. Origin of sterno-thyroid.—3. Triangularis sterni.—4, 4. Internal intercostals.—5. Attachment of diaphragm.—6. Superior part of transversalis.

#### *Fig. 4.* DEEP MUSCLES OF NECK, ETC.

1. Rectus capitis anticus major.—2. Rectus anticus minor.—3. Rectus lateralis.—4. Longus colli.—5 and 6. Cut tendons of its vertical portion.—7. Its superior oblique portion.—8. Its inferior oblique portion.—9. Scalenus anticus, behind which is the subclavian artery.—10. Scalenus posticus.—11, 11'. Intertransversales.

## PLATE XXVIII.

### MYOLOGY, PLATE VIII.

#### DIAPHRAGM.—LUMBAR MUSCLES, ETC.

*Fig. 1.*—1. Xiphoid cartilage, raised by a hook.—2. Central tendon.—3. Opening for the inferior vena cava.—4, 4. Lateral leaflets.—5. Œsophageal opening, containing the Œsophagus and pneumo-gastric nerves.—6. Right crus of diaphragm.—6'. Left crus of diaphragm.—7. Aortic opening, completed above by the interlacing of some of the fibres of the crura.—8, 8. Openings for greater splanchnic nerves.—9. Ligamentum arcuatum internum (fibrous arch over the psoas muscle).—10. Psoas parvus.—11. Psoas magnus.—12. Ligamentum arcuatum externum.—13. Quadratus lumborum.

*Fig. 2.*—1. Xiphoid cartilage.—2. Fibres of origin of the diaphragm, the space between which is filled in with the cellular tissue of the anterior mediastinum.—3, 3. Origin of the diaphragm from the costal cartilages.

*Fig. 3.*—1. Psoas parvus.—1'. Aponeurotic expansion of the tendon of the psoas parvus, cut.—2. Psoas magnus.—2'. Inferior extremity of the psoas magnus, cut.—3. Quadratus lumborum, partly hidden by the psoas muscle.—3'. Quadratus lumborum.—4, 4. Apertures for lumbar arteries.—5, 5. Inter-transversales.—6. Iliacus internus.—7. Obturator externus.

Fig. 1.

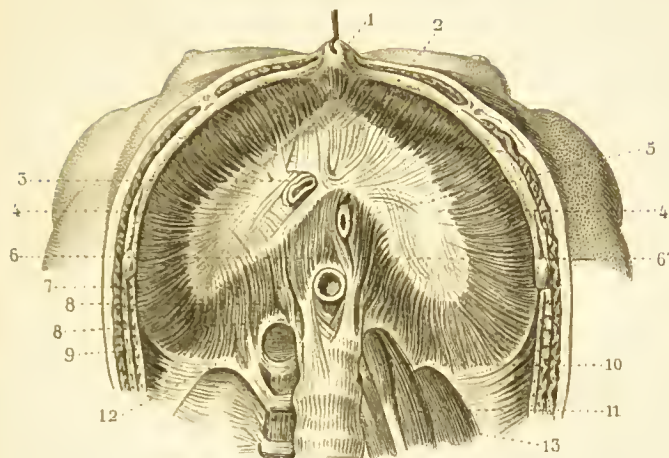


Fig. 2.

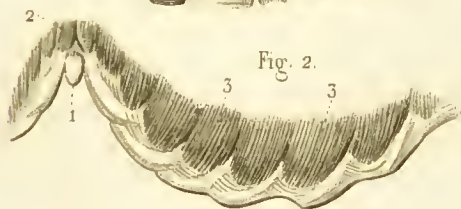
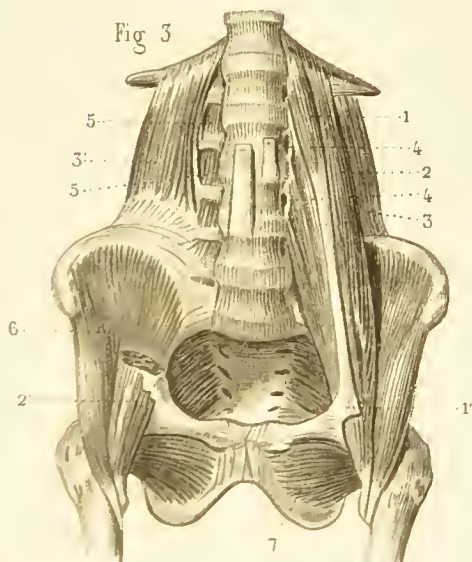


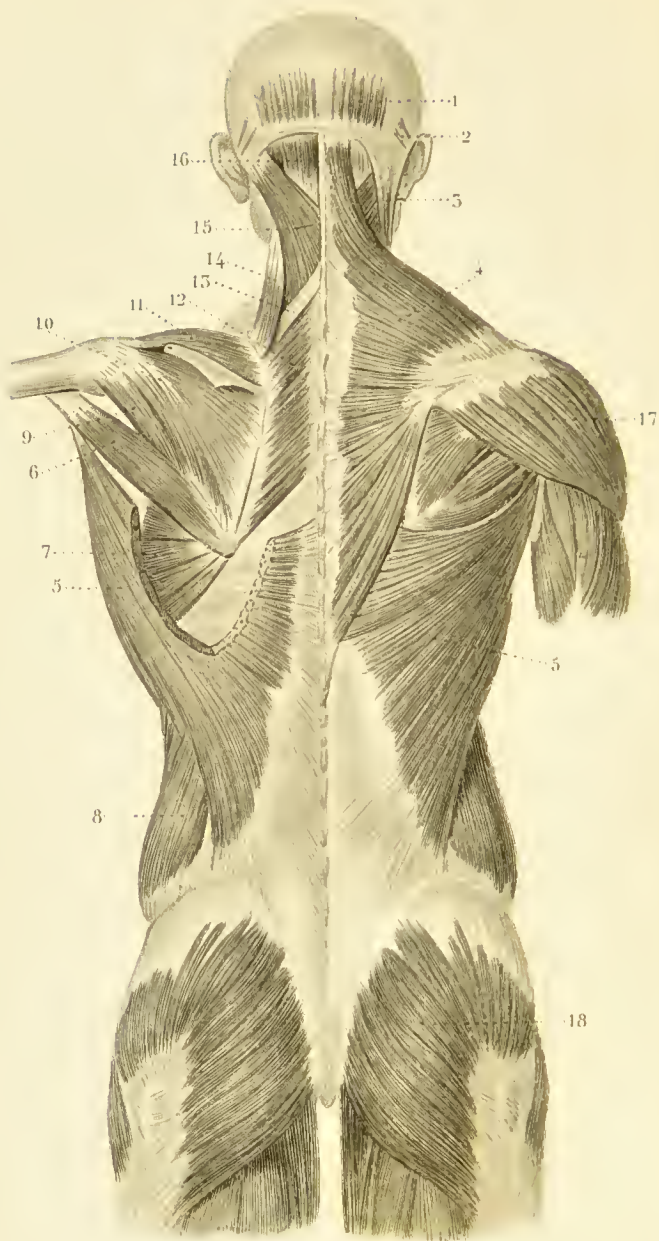
Fig 3













## PLATE XXIX.

### MYOLOGY, PLATE IX.

#### POSTERIOR SUPERFICIAL MUSCLES OF THE TRUNK.

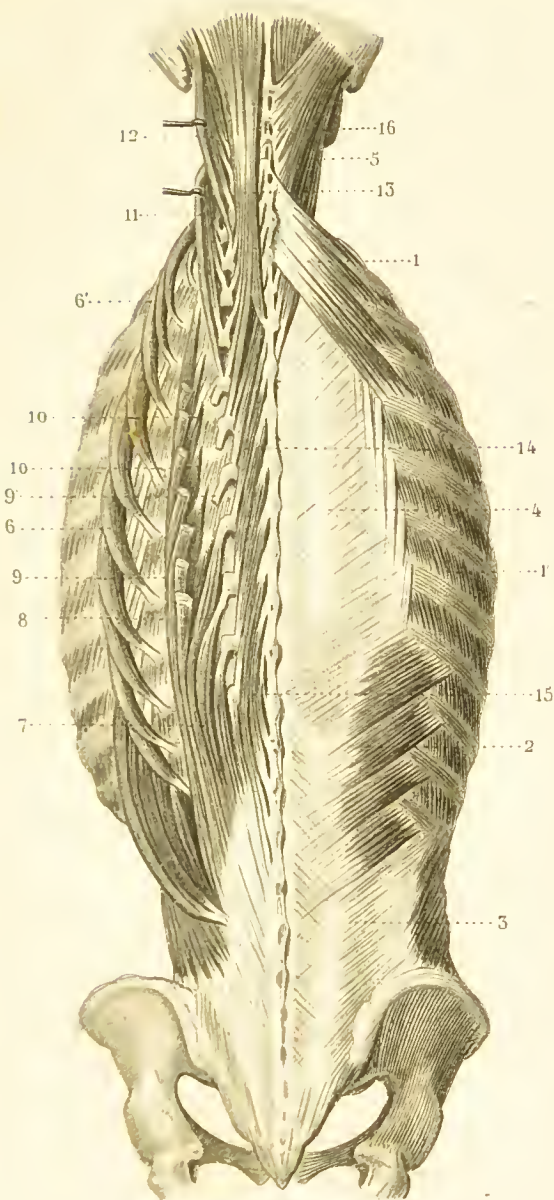
1. Posterior belly of occipito-frontalis.—2. Retrehens aurem.
- 3. Sterno-cleido-mastoid.—4. Trapezius.—5, 5. Latissimus dorsi, the left muscle cut so as to show its relations.—6. Teres major.—7. Serratus magnus.—8. External oblique.—9. Teres minor.—10. Infra-spinatus.—11. Supra-spinatus.—12. Rhomboideus major.—13. Rhomboideus minor.—14. Levator anguli scapulæ. — 15. Splenius. — 16. Complexus. — 17. Deltoid. — 18. Gluteus maximus.

PLATE XXX.

MYOLOGY, PLATE X.

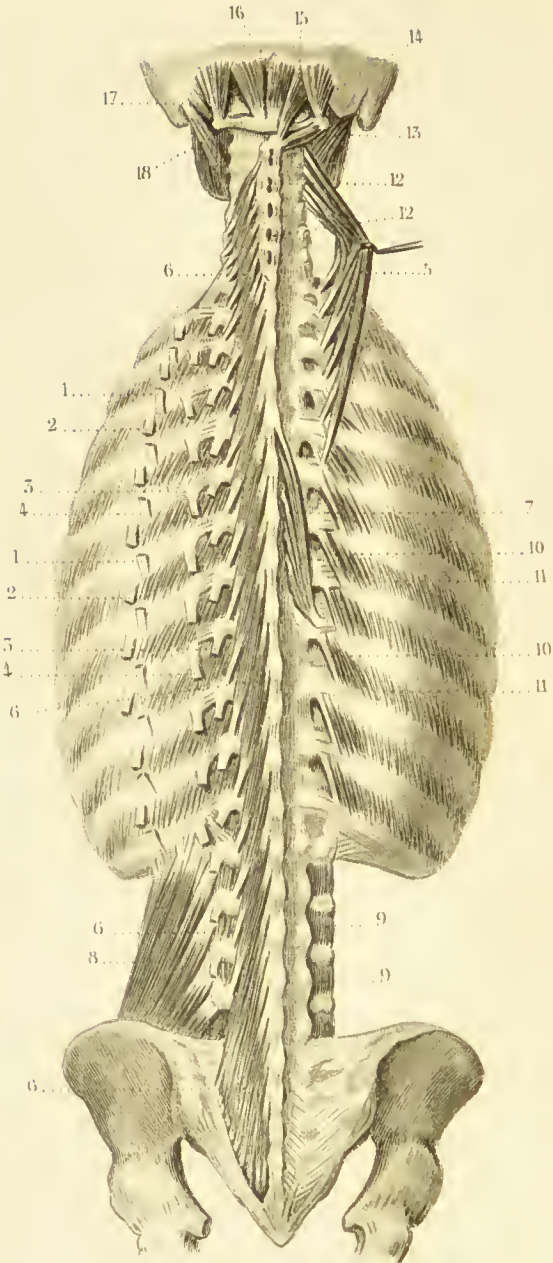
DEEP MUSCLES OF THE POSTERIOR PART OF THE TRUNK.

1. *Serratus posticus superior*.—1'. External intercostals.—
2. *Serratus posticus inferior*.—3. Aponeurosis of the internal oblique, continuous with that of the preceding muscle.—
4. Dorsal aponeurosis, to the outer side of which are seen the tendons of the *sacro-lumbalis*.—5. *Splenius*.—6. *Sacro-lumbalis*, drawn on one side.—6'. Superior portion of *sacro-lumbalis (accessorius)*.—
7. Inferior portion of *longissimus dorsi*.—8. Internal tendons of *longissimus dorsi*, attached to the transverse processes.—9. *Longissimus dorsi*, cut and drawn aside.—
- 9'. Internal tendons of this muscle, attached to the transverse processes.—10, 10. External tendons, attached to the space contained between the costal tubercle and angle.—
11. *Transversalis colli*.—12. *Trachelo mastoid*.—13. *Complexus* and *biventer cervicis*.—14. *Transverso spinales*.—15. *Semi-spinalis* of Winslow.—16. *Inter-spinales cervicis*.









## PLATE XXX .

### MYOLOGY, PLATE XI.

#### SECOND LAYER OF DEEP MUSCLES OF THE POSTERIOR PART OF THE NECK AND TRUNK.

1, 1. Tendons of origin of the sacro-lumbalis, and—2, 2. Tendons of insertion of this muscle.—3, 3. Internal tendons of the longissimus dorsi.—4, 4. External tendons of this muscle.—5. Transversalis colli, drawn on one side by a hook.—6, 6, 6, 6. Transverso-spinales.—7. Superficial, middle, and deep fasciculi of this muscle.—8. Quadratus lumborum.—9, 9. Inter-transversales lumborum.—10, 10. Rotatores costarum.—11, 11. External intercostals.—12, 12. Inter-spinales cervicis.—13. Obliquus inferior.—14. Obliquus superior.—15. Rectus capitis posticus major.—16. Rectus capitis posticus minor.—17. Posterior belly of digastric.—18. Atlas.

## PLATE XXXII.

### MYOLOGY, PLATE XII.

*Fig. 1.*—1. Deltoid, its tendon is continuous with the brachia. aponeurosis.

*Fig. 2.* MUSCLES OF THE POSTERIOR SCAPULAR REGION.

1. Supra-spinatus.—2. Infra-spinatus.—3. Teres minor.—4. Teres major.—5. Latissimus dorsi.

*Fig. 3.* ANTERIOR MUSCLES OF THE SCAPULA AND ARM.

1. Sub-scapularis.—2. Biceps.—3. Coraco-brachialis.—4. Brachialis anticus.—5. Tendon of pectoralis major, showing its two portions (*attollens* and *attrahens*).—6. Teres major.—7. Internal head of triceps.—8. Bicipital fascia.

*Fig. 4.*—1. Tendon of insertion of deltoid, enclosed by the upper part of the brachialis anticus.—2. Brachialis anticus.

*Fig. 5.*—1. Part of deltoid.—2. Triceps.—3. Long or middle head of triceps.—4. External head.—5. Internal head.—6. Anconeus.



Fig 1



Fig 2.

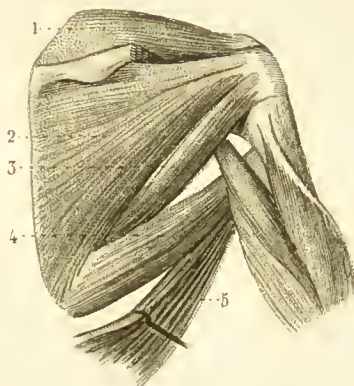


Fig 3



Fig 4



Fig 5.







Fig 2.

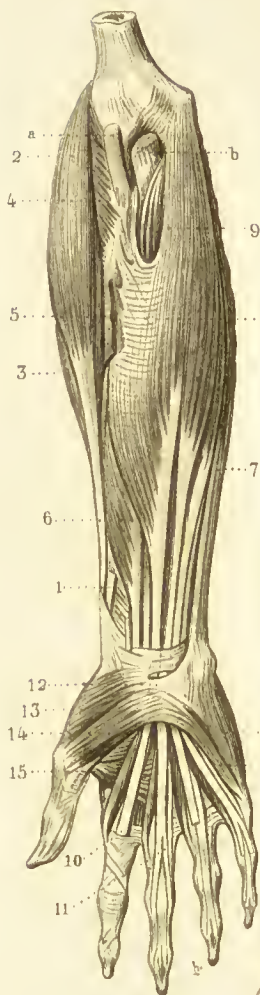


Fig. 1



Fig 3.



## PLATE XXXIII.

### MYOLOGY, PLATE XIII.

#### ANTERIOR MUSCLES OF THE FORE-ARM AND HAND.

*Fig. 1.*—a. Inferior extremity of the biceps, with the bicipital fascia, cut.—b. Brachialis anticus.—c. Triceps.

1. Pronator teres.—2. Flexor carpi radialis.—3. Palmaris longus, the tendon of which muscle is continuous with—3'. The palmar fascia.—4. Flexor carpi ulnaris.—5. Supinator longus.—6. Extensor carpi radialis longior.—7. Extensor carpi radialis brevior.—8. Flexor sublimis digitorum.—9. Abductor pollicis.—10. Opponens.—11. Palmaris brevis.

*Fig. 2.*—a. Tendon of biceps.—b. Insertion of brachialis anticus.

1. Tendon of supinator longus, cut.—2. Extensor carpi radialis longior.—3. Extensor carpi radialis brevior.—4. Supinator brevis.—5. Insertion of pronator radii teres.—6. Flexor longus pollicis.—7. Flexor carpi ulnaris.—8. Flexor sublimis digitorum.—9. Division of the heads of origin of this muscle, between which is seen the flexor profundus.—10. Flexor sublimis tendon passing into the digital sheath.—11. Flexor sublimis tendon perforated by the flexor profundus.—12. Anterior annular ligament of carpus.—13. Opponens pollicis.—14. Outer half of flexor brevis pollicis.—15. Adductor pollicis.—16. Abductor, minimi digiti.—17. Flexor brevis minimi digiti.

*Fig. 3.*—1. Extensor carpi radialis brevior.—2. Supinator brevis.—3. Flexor profundus digitorum.—4. Lumbricales.—5. Flexor longus pollicis.—5'. Tendon of this muscle.—6. Pronator quadratus.—7. Inner head of flexor brevis pollicis.—8. Opponens pollicis.—9. Adductor pollicis.—10. Origin of abductor minimi digiti.—11. Opponens minimi digiti.

## PLATE XXXIV.

### MYOLOGY, PLATE XIV.

#### DEEP MUSCLES OF PALM OF HAND.

*Fig. 1.*—1. Tendon of flexor longus pollicis, cut.—2. Pronator quadratus.—3. The two heads of the flexor brevis pollicis.—4. Adductor pollicis.—5, 5, 5, 5. The seven interossei muscles. It must be borne in mind that the dorsal interossei are seen cropping up into the palm.

#### POSTERIOR MUSCLES OF THE FORE-ARM AND HAND.

*Fig. 2.*—1. Tendon of extensor carpi ulnaris.—2. Tendon of extensor carpi radialis longior.—3. Tendon of extensor carpi radialis brevior.—4. Extensor secundi internodii pollicis.—5, 5, 5, 5. The four dorsal interossei.—6, 6, 6. The three palmer interossei, the upper part of these muscles being hidden by the dorsal interossei.

*Fig. 3.*—a. Tendon of triceps.—b. Brachialis anticus.

1. Supinator longus.—2. Extensor carpi radialis longior.—2'. Tendon of this muscle. 3. Extensor carpi radialis brevior.—3'. Its tendon.—4. Extensor ossis metacarpi pollicis.—5. Extensor primi internodii pollicis.—6. Extensor secundi internodii pollicis.—7. Extensor communis digitorum.—8. Extensor minimi digiti.—9. Extensor carpi ulnaris.—10. Anconeus.—11. Tendinous connexion between the common extensor tendons.—12. Middle portion of the common extensor tendons.—13, 13. Lateral re-united portions of the same.—14. Expansions of the tendons of the interossei muscles, uniting with the common extensor tendon.

*Fig. 4.*—1. Anconeus.—2. Origin of extensor carpi radialis longior.—2'. Cut tendon of this muscle.—3. Extensor carpi radialis brevior.—4. Supinator brevis.—5. Extensor ossis metacarpi pollicis.—6. Extensor primi internodii.—7. Extensor secundi internodii pollicis.—8. Indicator.—9. Tendon of common extensor with which it is united.—10. First dorsal interosseus.



Fig 3.



Fig. 2.

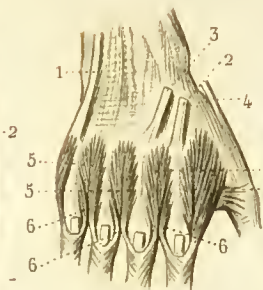


Fig. 1.



Fig 4









Fig 3.

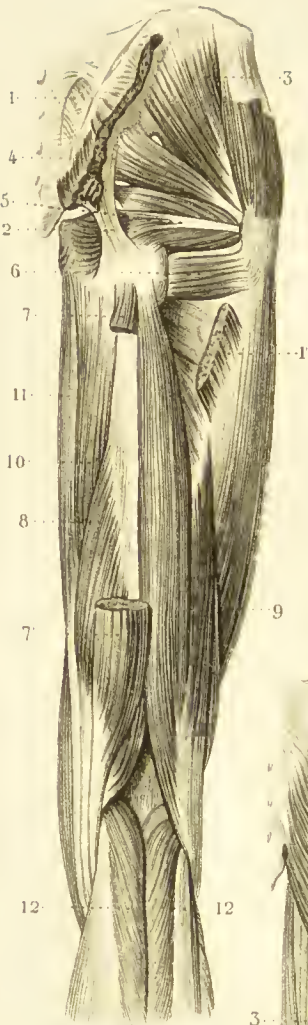


Fig 1



Fig 2.



Fig 4



## PLATE XXXV.

### MYOLOGY, PLATE XV.

#### MUSCLES OF THE GLUTEAL REGION, PELVIS AND BACK OF THIGH.

*Fig. 1.*—Sartorius.—2. Gracilis.—3. Semi-tendinosus. The semi-membranosus is seen between the two latter muscles.

*Fig. 2.*—1. Gluteus maximus.—2. Aponeurosis covering the gluteus medius (derived from fascia lata).—3. Origins of hamstrings.—4. Vastus externus.

*Fig. 3.*—1. Origin of gluteus maximus.—1'. Its insertion.—2. Great sacro-sciatic ligament.—3. Gluteus medius.—4. Piriformis.—5. Obturator internus, its tendon passing between the two gemelli, and running over *articular* cartilage covering the lesser sciatic notch.—6. Quadratus femoris.—7. Upper part of semi-tendinosus, cut.—7'. Its inferior part.—8. Biceps.—10. Part of adductor magnus.—11. Part of gracilis.—12, 12. Gastrocnemius.

*Fig. 4.*—1. Gluteus minimus.—2. Gemellus superior.—3. Obturator internus.—4. Gemellus inferior. 5. Insertion of gluteus maximus.—6. Origin of short head of biceps, cut.—7. Vastus externus.—8. Adductor magnus.—9. Gracilis.—10, 10, 10. Foramina for perforating arteries.

PLATE XXXVI.

MYOLOGY, PLATE XVI.

ANTERIOR AND INTERIOR MUSCLES OF THE THIGH.

*Fig. 1.*—1. Psoas magnus.—2. Iliacus internus.—3. Tensor fasciæ or tensor vaginæ femoris.—3'. Fascia lata, into which this muscle is inserted.—4. Gluteus medius.—5. Sartorius.—6. Rectus femoris.—7. Vastus externus.—Vastus internus.—9. Patella.—10. Aponeurosis of knee.—11. Pectineus.—12. Adductor longus.—13. Gracilis.

*Fig. 2.*—1. Tendon common to the iliacus and psoas.—2. Origin of sartorius, cut and turned up.—2'. Insertion of this muscle.—3. Double origin of rectus femoris.—3'. Insertion of this muscle.—4. Anterior part of gluteus medius.—5. Vastus externus (the external part of the quadriceps extensor).—5'. Vastus internus (the internal part of the quadriceps extensor).—6. Pectineus.—7. Adductor longus.—8. Adductor magnus.—9. Gracilis.

*Fig. 3.*—1. Origin of rectus femoris.—2. Insertion, cut and turned down.—3. Sub-crureus.—4. Insertion of adductor longus.—5. Adductor brevis.—6. Adductor magnus.—7. Obturator externus.

Fig 2

Fig 1

Fig 3.

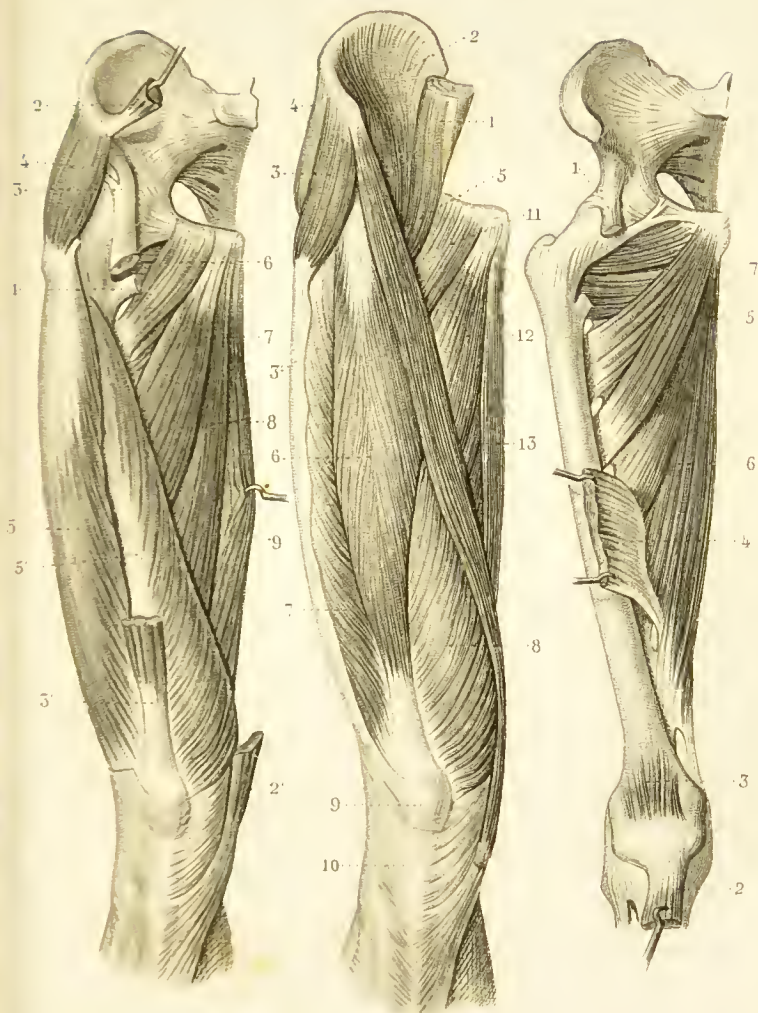


Fig 1



Fig 2

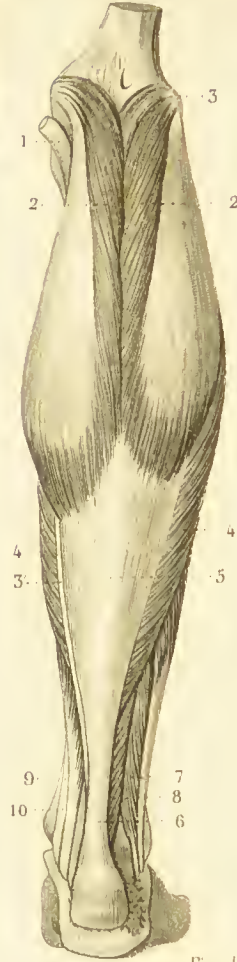


Fig 3

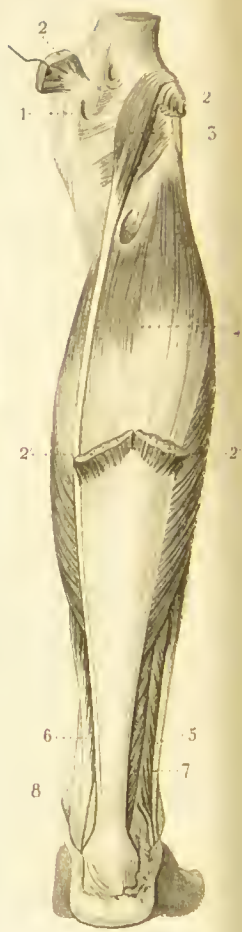
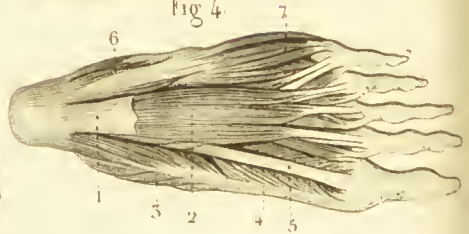


Fig 4





## PLATE XXXVII.

### MYOLOGY, PLATE XVII.

#### MUSCLES OF THE LEG AND FOOT.

##### *Fig. 1.* ANTERIOR MUSCLES OF THE LEG.

1. Tendon of biceps.—2. Tibialis anticus.—3. Extensor proprius pollicis.—4. Extensor communis digitorum.—5. Peroneus tertius.—6. Part of the gastrocnemius and soleus.—7, 7. Peroneus longus.—8, 8. Peroneus brevis.—9. Anterior annular ligament.—10. Extensor brevis digitorum.—11, 11. Abductor minimi digiti.

##### *Fig. 2.* POSTERIOR AND SUPERFICIAL MUSCLES OF THE LEG.

1. Tendon of semi-membranosus.—2, 2. Gastrocnemius.—3. Plantaris.—3'. Its tendon.—4, 4. Soleus.—5. Union of gastrocnemius and soleus.—6. Tendo-Achillis.—7. Peroneus longus.—8. Flexor longus pollicis.—9. Flexor communis digitorum.—10. Tibialis posticus.

*Fig. 3.*—1. Tendon of semi-membranosus, splitting into three fasciculi.—2, 2. Origin of gastrocnemius, cut.—2', 2'. Inferior portion of this muscle.—3. Plantaris.—4. Soleus.—5. Peronei.—6. Flexor communis digitorum.—7. Flexor longus pollicis.—8. Tibialis posticus.

##### *Fig. 4.* SUPERFICIAL MUSCLES OF THE SOLE.

1. Plantar fascia, cut.—2. Flexor brevis digitorum.—3. Abductor pollicis.—4. Internal portion of flexor brevis pollicis.—5. Tendon of flexor longus pollicis.—6. Abductor minimi digiti.—7. Flexor brevis minimi digiti.

PLATE XXXVIII.

MYOLOGY, PLATE XVIII.

POSTERIOR AND DEEP MUSCLES OF THE LEG AND SOLE OF FOOT.

*Fig. 1.*—1. External lateral ligament of knee.—2. Tendon of semi-membranosus.—3. Popliteus.—4, 4. Origins of soleus.—5. Flexor communis digitorum.—6. Flexor longus pollicis.—7. Tendon of tibialis posticus.—8. Peroneus longus.—9. Peroneus brevis.—10. Flexor accessorius.—11. Abductor pollicis, cut.—12. Flexor brevis pollicis.—13. Abductor minimi digiti.—14. Flexor brevis minimi digiti.

*Fig. 2.*—1. Tendo-Achillis, cut and turned down.—2. Tendon of flexor communis digitorum, cut.—3. Superior part of flexor longus pollicis.—3'. Inferior extremity of the same.—4. Tibialis posticus.—5. Peroneus brevis.—6. Cut extremity of peroneus longus appearing at ankle.

*Fig. 3.*—1. Tendon of flexor communis digitorum.—2. Tendon of flexor longus pollicis.—3. Tendon of tibialis posticus.—4. Tendon of peroneus longus.—4'. Tendon of peroneus brevis.—5. Tendon of abductor pollicis, cut.—6. Flexor brevis pollicis.—7. Abductor pollicis.—8. Transversus pedis.—9. Interossei.

*Fig. 4.*—1. Tendon of peroneus longus.—2. Plantar interossei. The inferior portions of the dorsal interossei are also seen.

*Fig. 5.*—1, 1, 1, 1. Dorsal interossei.—2, 2, 2. Plantar interossei. The tendons only seen.



Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.



Fig. 5.



Fig 1

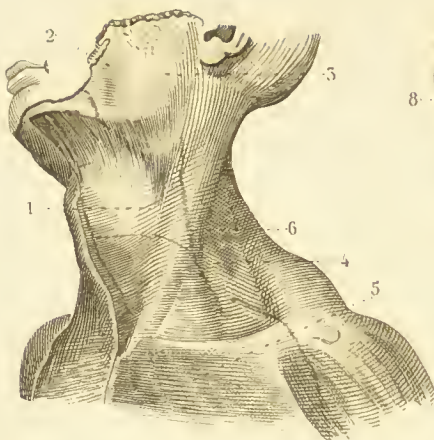


Fig 2



Fig 3.

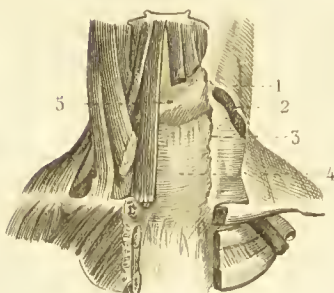


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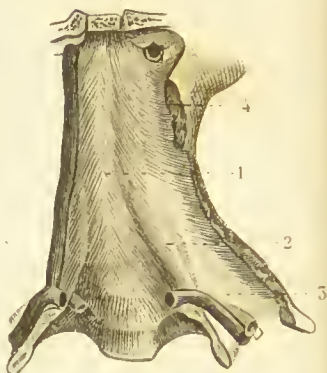


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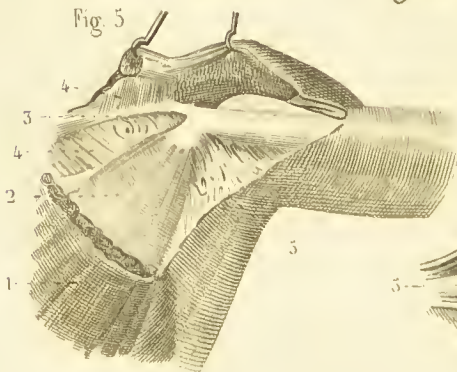
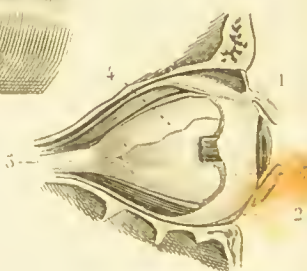


Fig 6.



## PLATE XXXIX.

### FASCIÆ, PLATE I.

#### *Fig. 1. FASCIA OF THE NECK.*

The platysma is raised with the fascia superficialis which unites it with the muscle of the opposite side.

1. Superficial layer of cervical fascia.—2. Masseteric fascia.—3. Capsule of parotid gland, continuous with the cervical fascia.—4. Portion of cervical fascia called supra-clavicular.—5. Continuation of cervical fascia over the pectoralis major.—6. External jugular vein seen through the fascia, and resting on the sternocleido-mastoid muscle.

*Fig. 2.*—1. Middle portion of cervical fascia.—2. Superficial layer, cut.—3. Middle layer, passing under the sterno-mastoid, and forming a pulley for the middle tendon of the omo-hyoid.—4. Sheath of vessels.—5. Sterno-mastoid, cut.—6. Part of deep cervical fascia attached to the lower jaw and separating.—7. The parotid, and—8. The sub-maxillary glands, and forming capsules for them.

*Fig. 3.*—1. Superficial cervical fascia, cut.—2. Sterno-cleido-mastoid, cut.—3. Middle layer of cervical fascia.—4. Deep layer of cervical fascia, prolonged into the chest, and attached to the lower border of the thyroid body.—5. Thyroid body.

*Fig. 4.*—1. Pre-vertebral fascia.—2. Scalenus anticus muscle, seen through the fascia.—3. Clavicle, cut.—4. Sterno-mastoid, cut.

#### *Fig. 5. FASCIA OF THE AXILLA.*

1. Pectoralis major, cut.—2. Pectoralis minor.—3. Aponeurotic fasciculus, to which is attached—4, 4. The costo-coracoid membrane.—5. Suspensory ligament of the axilla.

#### *Fig. 6. FASCIA OF THE ORBIT.*

1 and 2. Fascia of the eyelids, continuous with the tarsal fibro-cartilages.—3. Aponeurotic expansion, uniting the muscles of the eyeball, and splitting to form sheaths for each of them.—4. Aponeurotic expansion, covering the sclerotic, and terminating where the optic nerve pierces this coat.—5. Optic nerve.

## PLATE XL.

### FASCIÆ, PLATE II.

*Figs. 1, 2, 3, and 4* are transverse sections of limbs to show the aponeurotic sheaths of muscles, and the relations of these sheaths and muscles with the bones, the vessels, and nerves.

*Fig. 1.* SECTION OF THE RIGHT ARM AT ABOUT THE INFERIOR THIRD OF THE DELTOID.

*Fig. 2.* SECTION OF THE RIGHT FORE-ARM THROUGH ITS MIDDLE.

*Fig. 3.* SECTION OF THE RIGHT THIGH THROUGH ITS MIDDLE.

*Fig. 4.* SECTION OF THE RIGHT LEG THROUGH ITS SUPERIOR THIRD.

*Fig. 5.* SUPERFICIAL FASCIA OF THE ABDOMEN.

1. Superficial fascia.—2. Prolongation of this fascia into the thigh.—3. Its continuity with the dartos.—4. Suspensory ligament of penis.

*Fig. 6.*—1. Superficial fascia, turned down.—2. Portion of superficial fascia, attached to the crural arch.—3. Aponeurosis of the external oblique.—4. External abdominal ring, through which passes the spermatic cord.—5. Inter-columnar bands.—6. Linea alba.—7. Abdominal aponeurosis.



Fig. 2



Fig. 1.

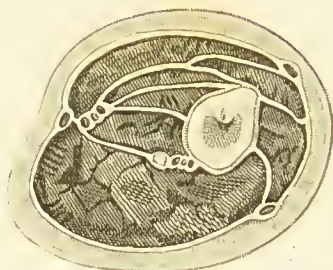


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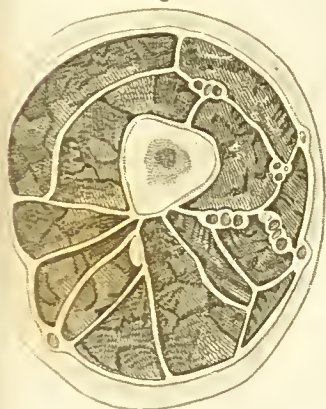


Fig. 4.



Fig. 6.

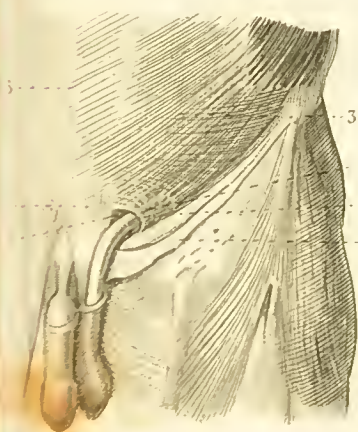


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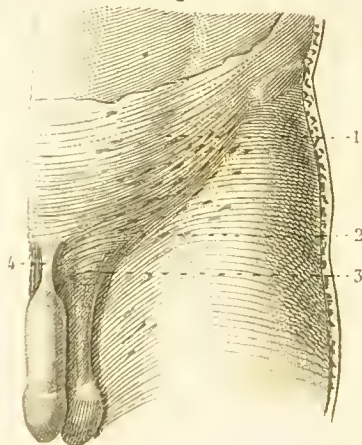


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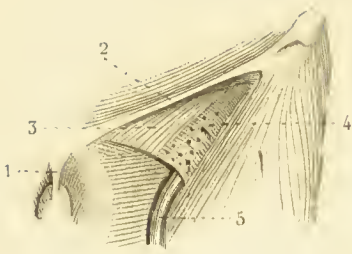


Fig 3

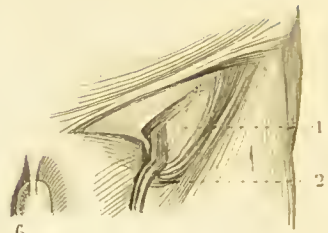


Fig 6.



Fig 4

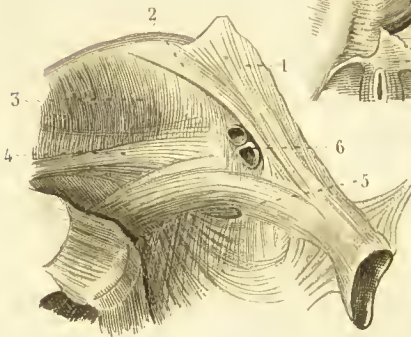


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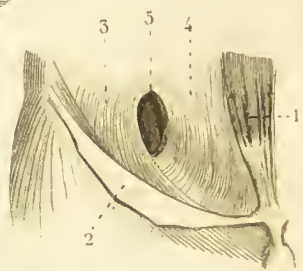


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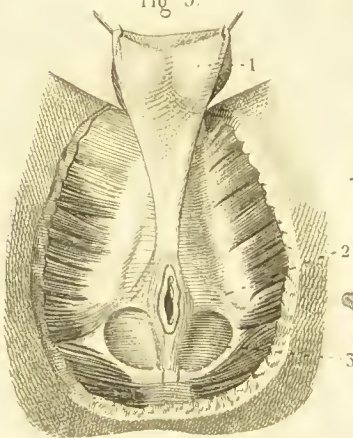
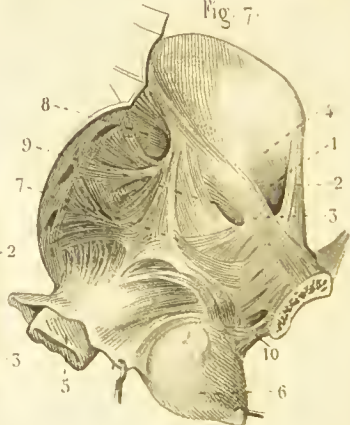


Fig 7.



## PLATE XLI.

### FASCIÆ, PLATE III.

#### *Fig. 1. FASCIA TRANSVERSALIS.*

1. Rectus abdominis.—2. Aponeurosis of external oblique, turned down.—3. External part of fascia transversalis.—4. Internal portion.—5. Superior aperture of the inguinal canal.

#### *Figs. 2 and 3. FASCIA OF GROIN.*

*Fig. 2.*—1. Suspensory ligament of penis.—2. Crural arch.—3. Gimbernat's ligament.—4. Cribriform fascia.—5. Internal saphena vein.

*Fig. 3.*—1. Aponeurotic fasciculi, covering the femoral vessels.—2. Falciform process of fascia lata.

#### *Fig. 4. ILLAC FASCIÆ, ETC., ETC. (Left side of pelvis.)*

1. Aponeurosis of external oblique.—2. Ilio-pubic band, or ligament of Hesselbach.—3. Iliac fascia.—4. Tendon of psoas parvus.—5. Cooper's ligament.—5. Femoral vessels, seen in the femoral canal.

#### *Fig. 5. DEEP LAYER OF SUPERFICIAL FASCIA OF THE PERINEUM.*

1. Scrotum raised, showing the posterior prolongation of the dartos.—2. Deep layer of superficial fascia.—3. Ischio-rectas fossæ.

*Fig. 6.*—1. Deep layer of superficial fascia, cut.—2. Anterior layer of triangular ligament of perineum.—3. Foramina for dorsal vessels and nerves of penis.—4. Bulb of urethra, cut.

#### *Fig. 7. PELVIC FASCIA, ETC.*

1. Crural canal.—2. Gimbernat's ligament.—3. Cooper's ligament.—4. Fascia iliaca, forming the external wall of the crural canal.—5. Rectum, turned down.—6. Bladder, turned down.—7. Pelvic fascia, showing the recto-vesical fascia and *white line*.—8. Foramen for the passage of the gluteal vessels.—9. Foramen for the passage of the obturator vessels and nerve.—10. Pubo prostatic, or anterior true ligament of the bladder, formed by a reflection of pelvic fascia.



PLATE XLII.

FASCIÆ, PLATE IV.

*Fig. 1.* FASCIÆ OF THE SUPERIOR EXTREMITY.

1. Fascia covering the deltoid.—2. Brachial aponeurosis.—Fascia of the fore-arm.—4. Bicipital fascia.—5. Palmar fascia.—6. Palmaris brevis muscle, inserted into the skin.

*Fig. 2.*—1. Posterior annular ligament of carpus.—2. Dorsa aponeurosis of the hand.

*Fig. 3.* FASCIÆ OF THE LOWER EXTREMITY.

1. Aponeurosis of the gluteus maximus.—2. Fascia enclosing tensor taginæ femoris.—3. Fascia lata of thigh.—4. Fascia lata of leg.—5. Dorsal aponeurosis of foot.

*Fig. 4.* ANTERIOR VIEW OF ANKLE.

1. Annular ligament of ankle, formed by two bands crossing one another.

*Fig. 5.* PLANTAR FASCIA.

1. Middle fasciculus and processes, between which pass the digital vessels and nerves.—2. Internal fasciculus.—3. External fasciculus.

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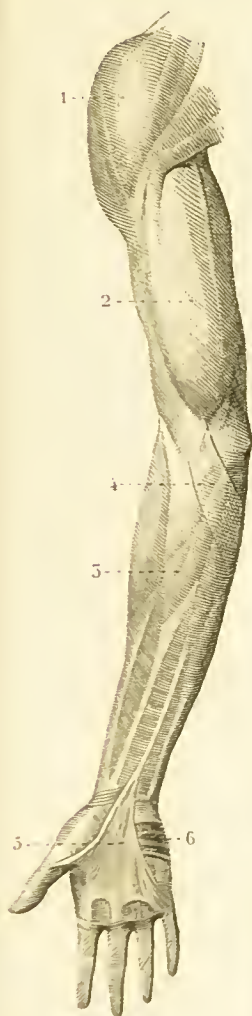


Fig 4.



Fig 3.

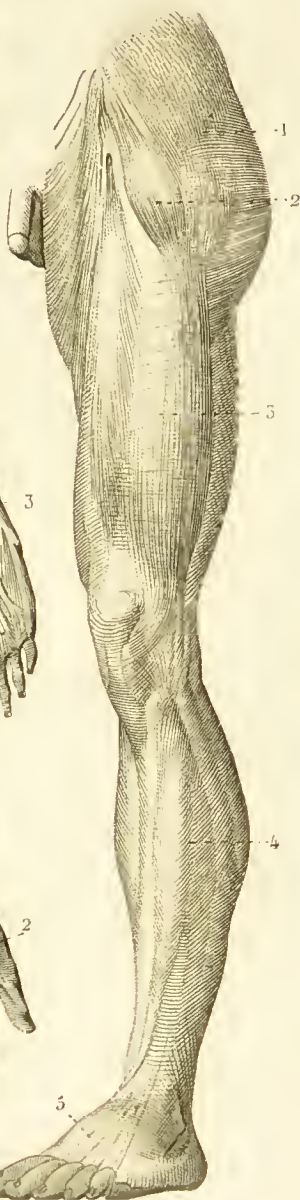


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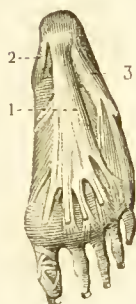


Fig 2.

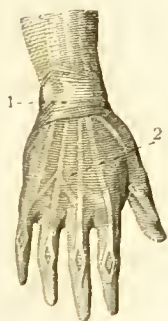


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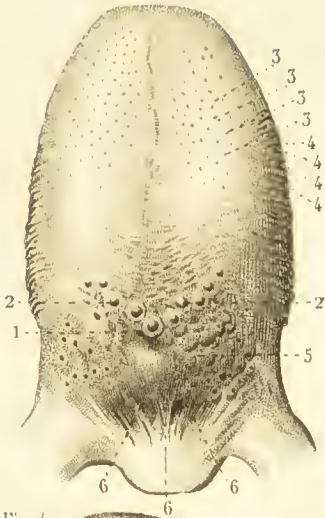


Fig. 1

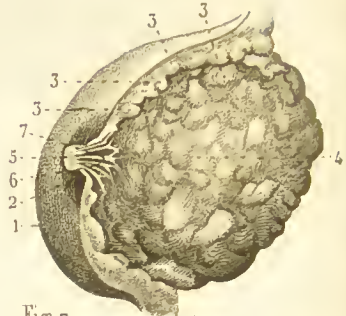


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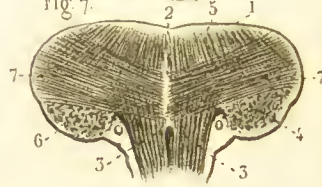


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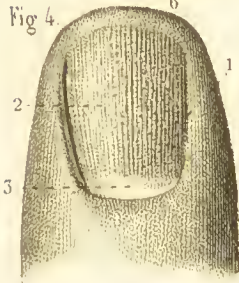


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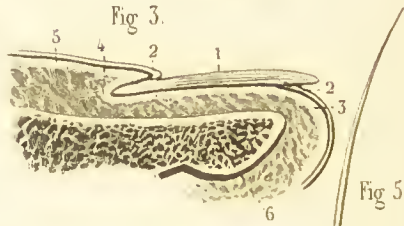


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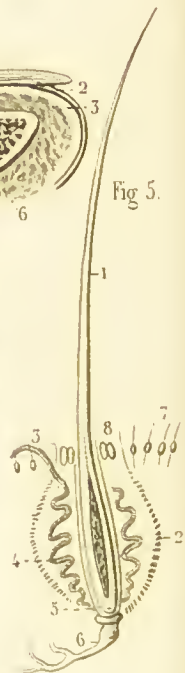
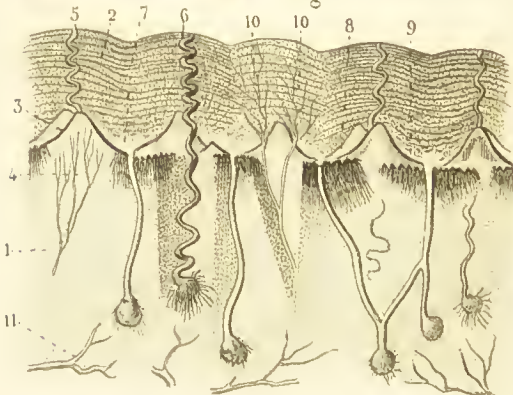


Fig. 2



## PLATE XLIII.

### SPLANCHNOLOGY, PLATE I.

#### *Fig. 1. MAMMARY GLAND.*

1. Skin.—2. Areola.—3, 3, 3. Fat lobes, of which the upper set belong to the skin and the others are distributed amongst the lobes of the gland.—4. Mammary gland.—5. Nipple.—6. Lacteal ducts.—7. Lacteal sinus.

#### *Fig. 2. MICROSCOPIC STRUCTURE OF THE SKIN, AFTER BRESCHET.*

1. Cutis vera.—2. Epidermis, distributed in layers.—3. Papillæ.—4. Nerves of a papilla.—5. Duct of a sweat gland.—6. Sweat gland and its duct.—7. Epidermic gland and duct.—8 and 9. Pigment cells.—10, 10. Lymphatics.—11. Blood vessels.

#### *Fig. 3. SECTION OF THE EXTREMITY OF A FINGER.*

1. Nail.—2, 2. Epidermis, continuous with nail.—3. Cutis vera.—4. Matrix of nail.—5. Subcutaneous fat.—6. Ungual phalanx.

#### *Fig. 4. EXTREMITY OF A FINGER, WITH THE EPIDERMIS REMOVED.*

1. Matrix of nail.—2. Papillæ.—3. White spot, called the *lunula*.

#### *Fig. 5. SECTION OF THE SKIN OF THE CHEEK OF AN OX, AFTER GAULTIER.*

1. Shaft of a hair.—2. Membrane of the hair follicle.—3. Vessel passing into the orifice of the follicle.—4. The same vessel passing down the follicle to the root of the hair.—5. The root sheath.—6. Root of the follicle, to which are distributed minute nervous filaments.—7. Smaller hairs.—8. Sebaceous glands.

#### *Fig. 6. TONGUE (dorsum).*

1. Foramen cœcum.—2, 2. Circumvallate papillæ.—3, 3, 3, 3. Filiform papillæ.—4, 4, 4, 4. Filiform papillæ.—5. Glands at the base of tongue.—6. Glosso-epiglottidean folds or ligaments.

#### *Fig. 7. VERTICAL SECTION OF THE TONGUE.*

1. Mucous membrane.—2. Fibrous septum.—3, 3. Genio-hyo-glossi muscles.—4, 5, and 6. Superior and inferior longitudinal fibres.—7. Transverse fibres.

## PLATE XLIV.

### SPLANCHNOLOGY, PLATE II.

#### *Fig. 1.* EYE.—EYELIDS, ETC.

1. Eyebrow.—2. Skin.—3. Subcutaneous cellular tissue.—
4. Orbicularis palpebrarum.—5. Tarsal ligament.—6, 6. Puncta lachrymalia.—7. Caruncula.—8. Plica-semilunaris.

#### *Fig. 2.* DEEPER DISSECTION OF EYELIDS.

1. Levator palpebræ.—2. Part of this muscle which is attached to the external margin of the orbit, separating the two portions of the lachrymal gland.—3. Orbital portion of lachrymal gland.—
4. Palpebral portion.—5 and 6. Tarsal cartilages.—7 and 8 Puncta lachrymalia and canaliculi.—9. Lachrymal sac.

#### *Fig. 3.* PORTION OF THE POSTERIOR SURFACE OF THE EYELID.

1. Cilia.—2. Meibomian glands.—3. Orifices of these glands.

#### *Fig. 4.* LACHRYMAL APPARATUS, ETC.

1. Orbicularis palpebrarum.—2. Conjunctiva.—3, 3. Tarsal cartilages and Meibomian glands.—4. Lachrymal gland.—5. Orifices of the ducts of this gland.—6. Channel for the reception of the tears as they pass towards the inner canthus, formed by a reflection of the conjunctiva.—7, 7. Canaliculi.—8. Lachrymal sac.—9. Nasal duct.

#### *Fig. 5.* NASAL DUCT.

The external wall of the nasal fossa is removed from the septum, and part of the inferior turbinated bone taken away.

1. Middle turbinated bone.—2. Inferior turbinated bone.—
3. Nasal duct.—4. Inferior opening of this duct.

#### *Fig. 6.* EYE, SIDE VIEW.—THE EYELIDS, AND CUT VERTICALLY.

1. Free border of eyelid.—2. Skin.—3. Cellular tissue.—
4. Orbicularis.—5. Tarsal cartilage.—6. Conjunctiva.—7. Levator palpebræ.—8, 8. Recti ; the tendons are seen united in front by their aponeurotic expansions.—9. Aponeurosis of the eyeball.—
10. Optic nerve.



Fig. 1.

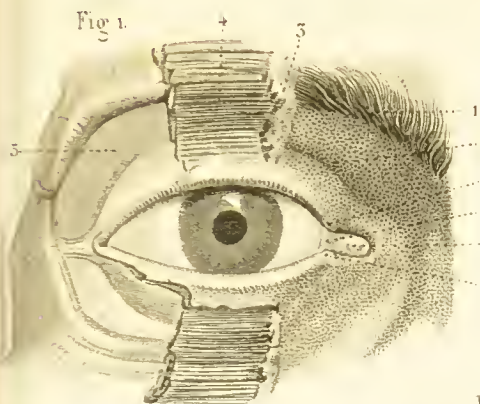


Fig. 3.



Fig. 2.

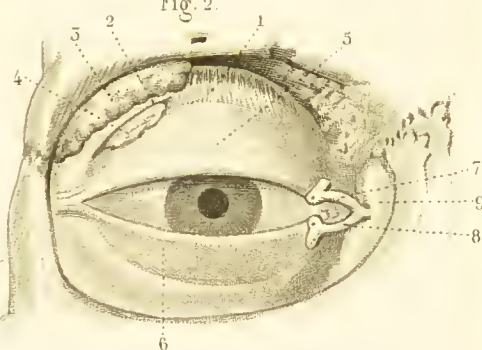


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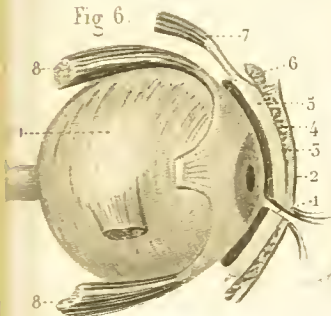


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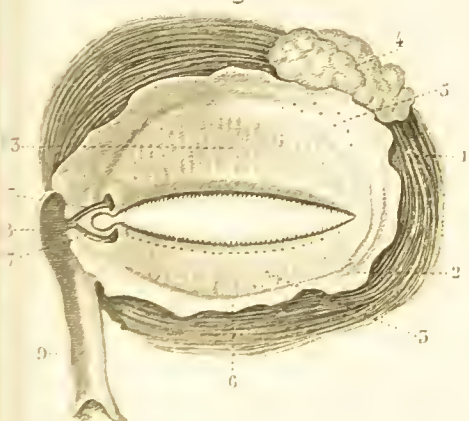


Fig. 5.



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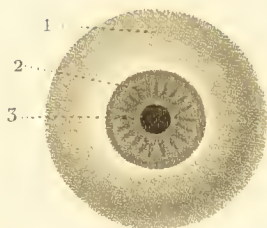


Fig 2



Fig. 5

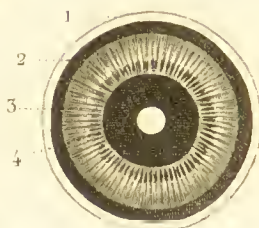


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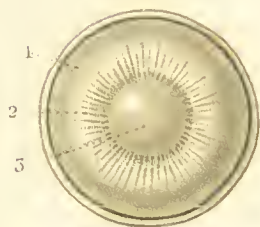


Fig 4.



Fig 6.



Fig 7.



Fig 10.

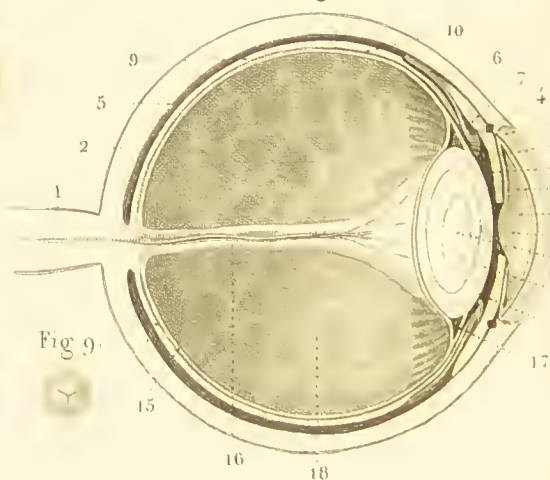


Fig 8.



Fig 9.





PLATE XLIV. (*bis.*)

SPLANCHNOLOGY, PLATE II. (*bis.*)

*Fig. 1.* FRONT VIEW OF EYE.

1. Sclerotic.—2. Iris, seen through the cornea.—3. Pupil.

*Fig. 2.* COATS OF THE EYE.

1. Optic nerve.—2. Sclerotic.—3. Cornea.—4. External layer of choroid (*vasa vorticosa*).—5. Internal layer (*membrana Ruyschiana*).—6. Ciliary ligament.—7. Iris and pupil.—8. Ciliary nerves.—9. Retina.—10. Hyaloid membrane, through which is seen the pigmentary layer of the choroid.

*Fig. 3.* ANTERIOR PART OF THE EYE, SEEN FROM BEHIND.

1. Sclerotic.—2. Choroid.—3. Ciliary processes.—4. Posterior surface of iris (*uvea*).

*Fig. 4.* POSTERIOR ASPECT OF THE RETINA.

1. Termination of optic nerve.—2. Folds of the retina.—3. Arteria centralis.—4. Yellow spot of Sæmmering.

*Fig. 5.*—1. Vitreous humour in its capsule.—2. Zonule of Zinn.—3. Lens.

*Figs. 6, 7, 8, and 9.* LENS, SHOWING ITS STRUCTURE.

*Fig. 10.* SECTION OF EYEBALL.

*Coats.*—1. Optic nerve.—2. Sclerotic.—3. Cornea.—4. Canal of Fontana.—5. Choroid.—6. Ciliary ligament.—7. Ciliary processes.—8. Iris.—9. Retina.—10. Jacob's membrane. *Humours.*—11. Anterior chamber.—12. Posterior chamber.—13. Membrane of the aqueous humour.—14. Aqueous humour. 15. Hyaloid membrane.—16. Canal of the vitreous humour, having in it the artery to the capsule of the lens (*fœtal structure*).—17. Canal of Petit.—This is formed by the splitting of the hyaloid membrane into two fasciculi; the anterior one becomes continuous with the capsule of the lens, the posterior passes behind it and remains distinct.—18. Vitreous humour.—19. Capsule of the lens.—20. Humour of Morgagni.—21. Lens.

PLATE XLV.

SPLANCHNOLOGY, PLATE III.

*Fig. 1.* CARTILAGES OF THE NOSE.

1. Upper lateral cartilage.—2. Lower lateral cartilage.—
3. Sesamoid cartilages.—4. Cellular tissue.

*Fig. 2.*—LOWER LATERAL CARTILAGES.

1. External lamina.—2. Internal lamina.

*Fig. 3.* UPPER LATERAL CARTILAGE, DETACHED.

*Fig. 4.* CARTILAGE OF THE SEPTUM.

1. Posterior prolongation.

*Fig. 5.* SECTION OF NASAL FOSSÆ, TO SHOW THE CARTILAGE OF THE SEPTUM.

1. Perpendicular plate of ethmoid.—2. Vomer.—3. Cartilage of septum.—4. Roof of nasal fossa.—5. Opening of sphenoidal cells.—6. Sphenoidal sinus.—7. Floor of nasal fossa.

*Fig. 6.* EXTERNAL WALL OF NASAL FOSSA : TURBINATED BONES AND MEATUSES.

1. Superior turbinated bone.—2. Superior meatus.—3. Middle turbinated bone.—4. Middle meatus, showing the opening of the antrum.—5. Inferior turbinated bone.—6. Inferior meatus.—
7. Orifice of Eustachian tube.

*Fig. 7.* THE TURBINATED BONES, BROKEN AWAY TO SHOW THE COMMUNICATION OF THE MEATUSES.

1. Ethmoidal cells, opening into the superior meatus.—
2. Sphenoidal sinus.—3. Anterior ethmoidal cells, opening into the middle meatus. This also communicates with—4. The frontal sinus, and—5. The antrum.—6. Inferior meatus, having opening into it.—7. The nasal duct.—8. Orifice of Eustachian tube.

Fig. 5.

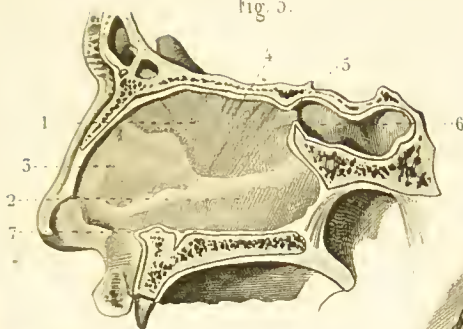


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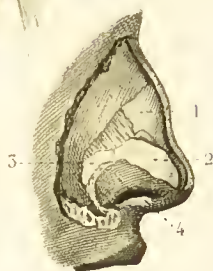


Fig. 4.



Fig. 6.

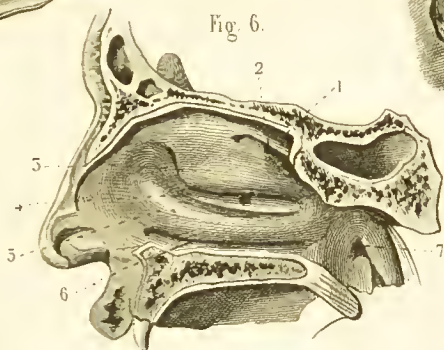


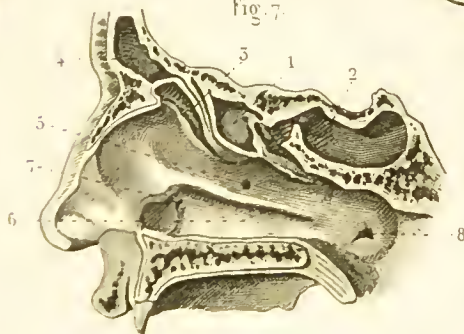
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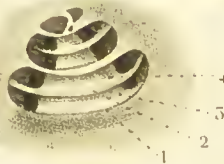
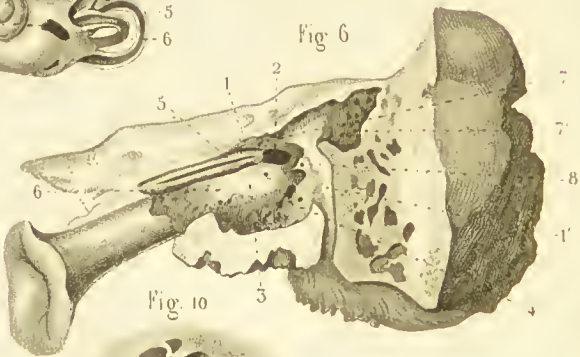
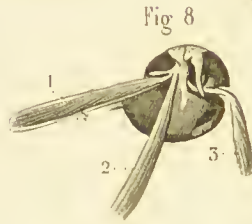
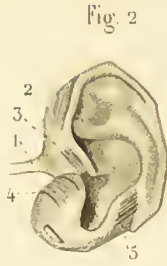


Fig. 3.



Fig. 7.





## PLATE XLVI.

### SPLANCHNOLOGY, PLATE IV.

#### *Fig. 1. THE EAR.—PINNA.*

1. Helix.—2. Fossa of helix.—3. Antihelix.—4. Fossa of antihelix.—5. Tragus.—6. Anti-tragus.—7. Concha.—8. Lobule.

#### *Fig. 2. MUSCLES OF PINNA.*

1. Process of the helix, to which is attached the anterior ligament of the pinna, and the attrahens aurem.—2. Helicis major.—3. Helicis minor.—4. Tragicus.—5. Anti-tragicus.

#### *Fig. 3. CARTILAGE OF PINNA (internal aspect).*

1. Transversus auriculæ.

#### *Fig. 4. EXTERNAL EAR.—PINNA AND EXTERNAL AUDITORY MEATUS.*

1. Pinna in profile, seen from behind.—2. Osseous portion of auditory canal.—3. Cartilaginous portion.—4. Membranous portion.

#### *Fig. 5. 1. Tympanic ring.—2. Membrana tympani.*

#### *Fig. 6. INTERNAL WALL OF TYMPANUM.*

1. Bony projection, showing the position of the aqueductus Fallopii —1'. Continuation of the aqueductus Fallopii.—2. Fenestra ovalis.—3. Promontory.—4. Fenestra rotunda.—5. Canal fortensor tympani.—6. Eustachian tube.—7. Orifices of mastoid cells.—7'. Mastoid cells.—8. Foramen of pyramid.

#### *Fig. 7.—OSSICLES OF TYMPANUM.*

1. Malleus.—2. Incus.—3. Os orbiculare.—4. Stapes.—5. Base of stapes.

#### *Fig. 8. MUSCLES OF THE TYMPANUM.*

1. Tensor tympani.—2. Laxator tympani.—3. Stapedius.

#### *Fig. 9. INTERNAL EAR, 'OR LABYRINTH.*

1. Fenestra ovalis.—2. Vestibule.—3. Fenestra rotunda.—4. Superior semicircular canal.—5. Inferior semicircular canal.—5. Horizontal semicircular canal.—7. Cochlea.

#### *Fig. 10. COCHLEA LAID OPEN.*

1. Outer wall of cochlea.—2. Lamina spiralis.—3. Tympanic scale.—4. Vestibular scale.

## PLATE XLVII.

### SPLANCHNOLOGY, PLATE V.

SALIVARY GLANDS.—THYROID BODY.—MOUTH.—PHARYNX, ETC.

*Fig. 1.* 1. Lower part of masseter.—2. Facial vessels.—3. Lower jaw.—4. Anterior belly of digastric.—5. Stylo-hyoid, at the lower border of which is seen part of the posterior belly of the digastric.—6. Thyro-hyoid membrane.—7. Thyro-hyoid muscle.—8. Thyroid cartilage.—9. Crico-thyroid muscle and membrane.—10. Thyroid body.—11. Trachea.—12. Sternocleido-mastoid drawn aside, showing—13. The common carotid artery.—14. Inferior constrictor of the pharynx.—15. Middle constrictor.—16. External portion of sub-maxillary gland.—17. Inferior part of parotid gland.—18. Process of deep cervical fascia, separating these two glands.

*Fig. 2.* SALIVARY GLANDS OF THE RIGHT SIDE.

The body of the lower jaw is removed, and the tongue drawn forward.

1. External auditory meatus.—2. Parotid gland.—3. Steno's duct, its orifice on the mucous surface of the cheek is shown, the membrane being raised by a hook.—4. Buccal glands.—5. Sub-maxillary gland, divided by the mylo-hyoid muscle.—6. Wharton's duct.—7. Riviniani's duct.—8. The junction of these ducts and the papilla at which they enter, on the under surface of the tongue.

*Fig. 3.* THYROID BODY, REMOVED FROM THE LARYNX.

1, 1. Lateral lobes.—2. Isthmus.

*Fig. 4.*—VERTICAL SECTION, SHOWING THE LEFT SIDE OF THE MOUTH, PHARYNX, AND LARYNX.

The dorsum linguæ is turned towards the right side, and the sub-maxillary and sub-lingual glands are retained in position.

1. Limit of the sub-maxillary and sub-lingual glands; this last covers Wharton's duct. 2. Circumvallate papillæ.—3. Foramen cecum.—Palatine arch.—5. Velum pendulum palati, terminating in the uvula.—6. Anterior pillar of fauces.—7. Posterior pillar.—8. Tonsil.—9. Posterior nares.—10. Orifice of Eustachian tube.—11. Pharynx.—12. Commencement of œsophagus.—13. Epiglottis, attached to the base of the tongue by a fold of mucous membrane (glosso-epiglottidean).—14. Trachea.—15. Larynx.—16. True vocal cord.—17. Ventricle of larynx (the false vocal cord is removed to show the depth of the ventricle). 18. Fatty mass, bounded by the epiglottis behind, thyroid cartilage and thyro-hyoid membrane in front, and hyo-epiglottidean membrane above.—19. Hyoid bone, cut.



Fig. 1

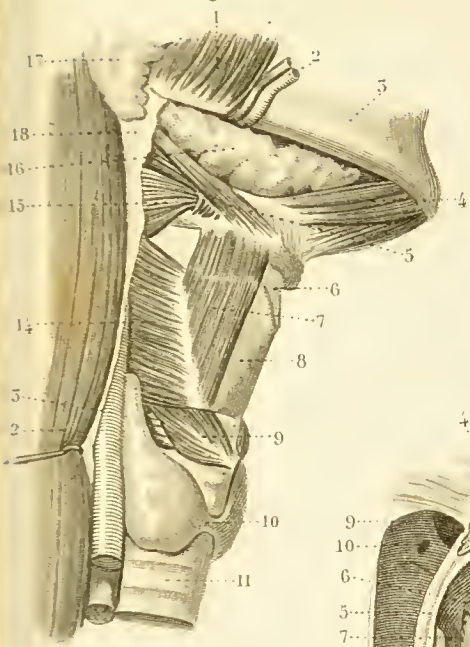


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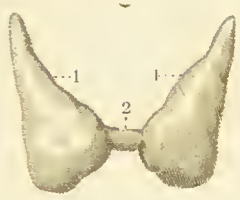


Fig. 4

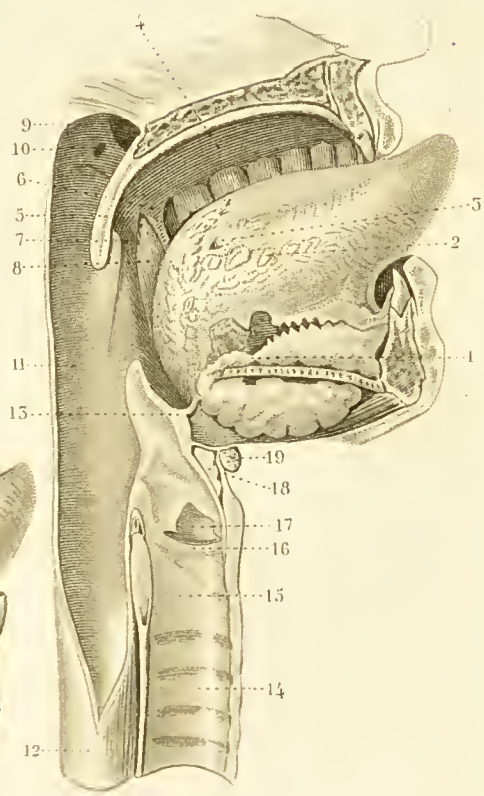
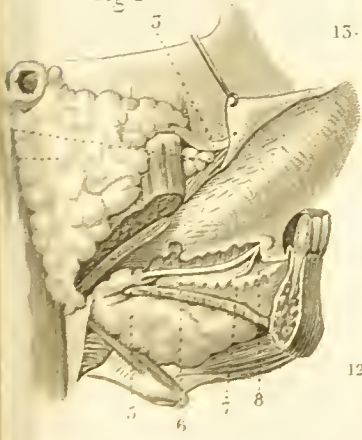


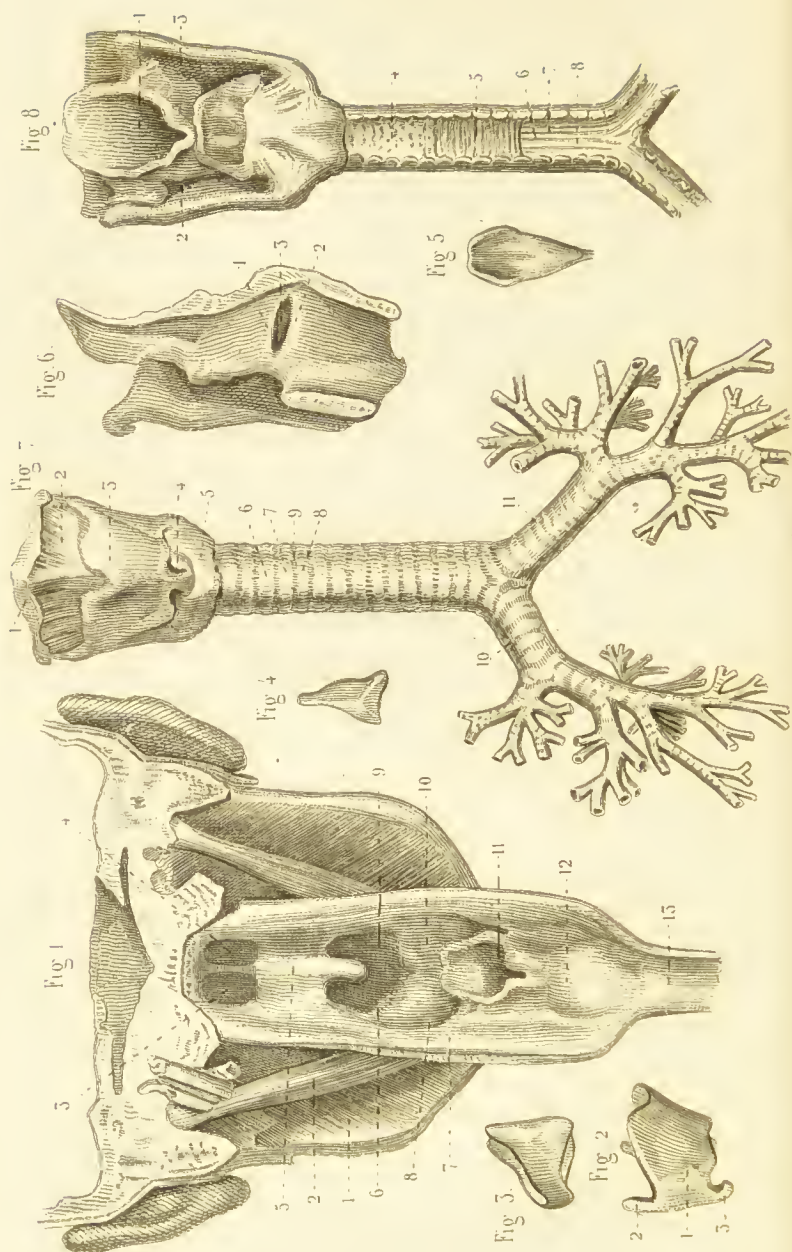
Fig. 2.











## PLATE XLVIII.

### SPLANCHNOLOGY, PLATE VI.

*Fig. 1.* PHARYNX OPENED BEHIND. It is separated from the vertebral column.

1. Internal pterygoid muscle.—2. Stylo-pharyngeus.—3 and 4. Posterior openings of the nasal fossæ.—5. Velum pendulum palati and uvula.—6. Anterior pillar, and,—7. Posterior pillar, forming together and with the base of the tongue,—8. The fossa for the tonsil.—9. Posterior opening of the mouth.—10. Base of the tongue.—11. Superior opening of larynx.—12. Posterior surface of larynx.—13. Commencement of trachea.

*Fig. 2.* THYROID CARTILAGE.

1. Oblique line.—2. Greater cornu.—3. Lesser cornu.

*Fig. 3.* CRICOID CARTILAGE.

*Fig. 4.* ARYTENOID CARTILAGE, SEEN FROM BEHIND.

*Fig. 5.* EPIGLOTTIS.

*Fig. 6.* VERTICAL SECTION OF LARYNX, SEEN FROM THE SIDE.

1. Superior, or false vocal cord (*left side*).—2. Inferior, or true vocal chord.—3. Ventricle of larynx.

*Fig. 7.* LARYNX, TRACHEA, AND BRONCHI, SEEN FROM THE FRONT.

1. Hyoid bone.—2. Thyro-hyoid membrane.—3. Thyroid cartilage.—4. Crico-thyroid membrane.—5. Cricoid cartilage.—6. Trachea.—7 and 8. Cartilaginous rings of trachea.—9. The membrane which separates them.—10. Right bronchus and its divisions.—11. Left bronchus.

*Fig. 8.* LARYNX, TRACHEA, AND BRONCHI, SEEN FROM BEHIND.

1. Superior opening of larynx.—2 and 3. Lateral sinuses of larynx.—4. Fibrous membrane of the trachea, studded with small glandular bodies, underneath which is seen,—5. A muscular membrane (*trachealis*), beneath which are,—6 and 7. Small fibrous bands, which support,—8. The mucous membrane seen through these bands.

## PLATE XLIX.

### SPLANCHNOLOGY, PLATE VII.

*Fig. 1.* RIGHT SIDE OF HEART, SEEN FROM THE FRONT  
(*showing its fibres*).

1. Right auricle, passing into the upper part of which is seen the vena cava superior.—2. Right ventricle.—3. Pulmonary artery.

*Fig. 2.* LEFT SIDE OF THE HEART, SEEN FROM THE FRONT  
(*showing its fibres*).

1. Left auricle and pulmonary veins.—2. Left ventricle.—3. Aorta.

*Fig. 3.* TRANSVERSE SECTION OF THE THORAX, SHOWING THE REFLECTION OF THE PLEURÆ, ETC.

1. Heart in the pericardium.—2 and 3. Lungs.—4. The left pleura, reflected off the costal cartilages and border of sternum, forming, with the right pleura similarly reflected, the sternum in front, and the pericardium behind,—5. The anterior mediastinum. The pleura next is reflected over,—6. The anterior part of the root of the lung and all the surface of the lung; next, over,—7. The posterior part of the root of the lung, and on to the sides of the vertebral column (*ligamentum latum pulmonis*), forming, with the pleura of the opposite side,—8. The posterior mediastinum, containing the œsophagus, etc.; next, it lines the internal surface of the walls of the chest, and returning to the point from which its reflection was first traced, makes a shut sac.

*Fig. 4.* LARYNX, TRACHEA, PERICARDIUM, AND LUNGS, SEEN FROM THE FRONT.

1. Larynx.—2. Trachea.—3 and 4. Lungs.—5. Pericardium.—6. Vena cava superior, formed by the innominate veins.—7. Innominate artery.—8. Left common carotid artery.—9. Left subclavian artery.

Fig. 5

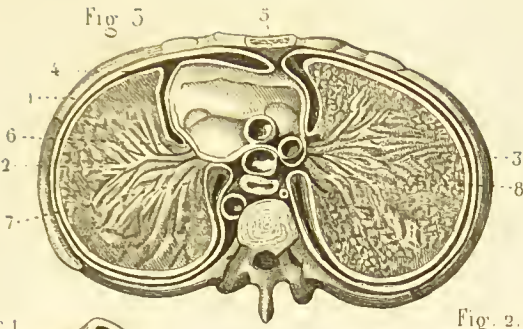


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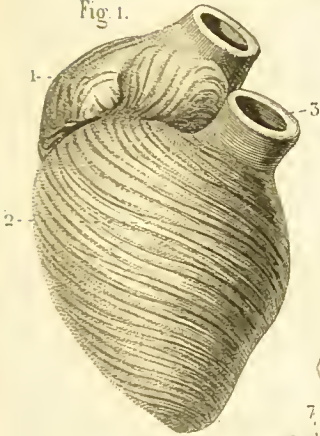


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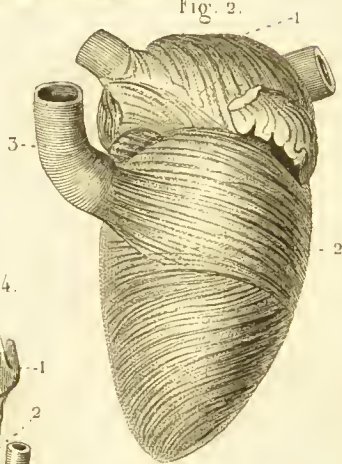


Fig. 4.

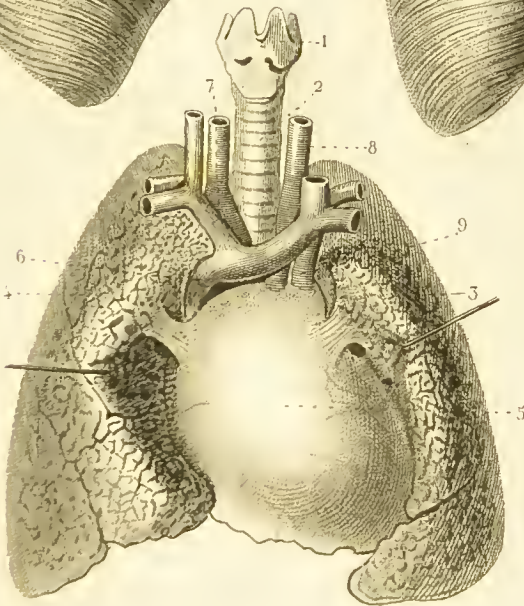




Fig 1

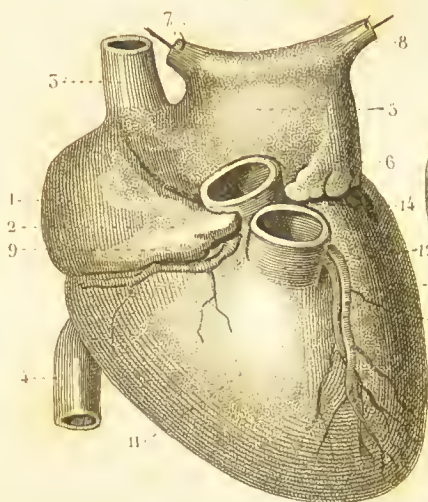


Fig 4

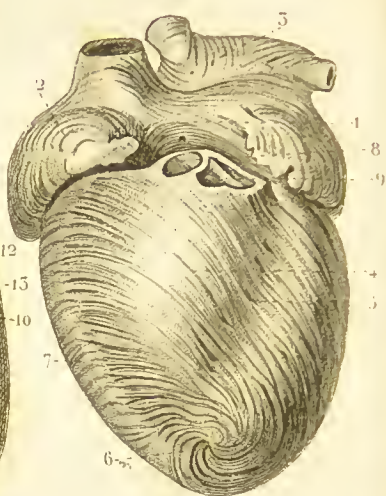


Fig 5.

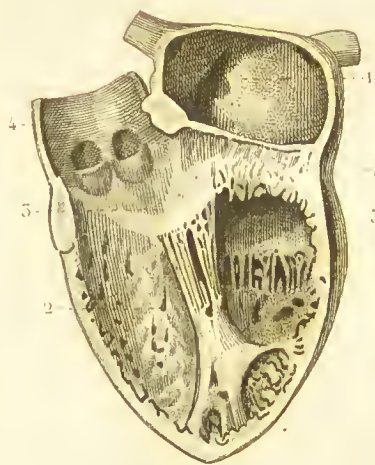
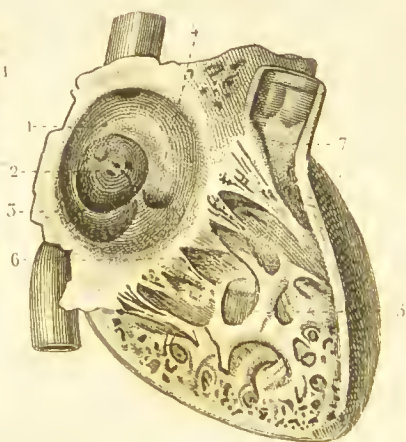


Fig 2





## PLATE L.

### SPLANCHNOLOGY, PLATE VIII.

#### *Fig. 1.* HEART, SEEN FROM THE FRONT.

1. Right auricle.—2. Auricular appendix.—3. Superior vena cava.—4. Inferior vena cava.—5. Left auricle.—6. Auricular appendix.—7 and 8. Pulmonary veins.—9. Auriculo ventricular groove, containing the coronary vessels.—10. Groove separating the two ventricles.—11. Right ventricle.—12. Pulmonary artery.—13. Left ventricle.—14. Aorta.

#### *Fig. 2.* RIGHT SIDE OF HEART, OPENED TO SHOW ITS INTERNAL STRUCTURE.

1. Cavity of auricle.—2. Fossa ovalis.—3. Eustachian valve.—4. Coronary sinus.—5. Cavity of ventricle, showing the columnæ carneæ.—6. One of the flaps of the tricuspid valve.—7. Pulmonary artery, showing two of its semi-lunar valves.

#### *Fig. 3.* LEFT SIDE OF HEART, OPENED.

1. Cavity of auricle, showing the openings of the pulmonary veins.—2. Cavity of ventricle.—3. Mitral valve.—4. Aorta, showing two of its semi-lunar valves.

#### *Fig. 4.* HEART, FROM WHICH THE SEROUS MEMBRANE AND FAT HAVE BEEN REMOVED IN ORDER TO SHOW ITS FLESHY FIBRES.

1. Fibres common to the two auricles.—2. Fibres of right auricle.—3. Fibres of left auricle.—4. Fibres common to the two ventricles.—5. Foramina, giving passage to coronary vessels.—6. Apex of heart, where are seen the fibres common to both sides, superficial at first, and spiral in their arrangements. These fibres then penetrate into the interior of the heart, and form a deep layer.—7. Raphé, where the superficial fibres, anterior and posterior, common to the ventricles, interlace and become deep.—8 and 9. Openings of the pulmonary artery and aorta.

## PLATE LI.

### SPLANCHNOLOGY, PLATE IX.

PERITONÆUM. SECTION OF ABDOMEN, SHOWING ITS REFLEXIONS.

1. Umbilicus.—2. Parietal layer of peritonæum.—3. Remains of umbilical vein.—4. Suspensory ligament of liver.—5. Diaphragm raised by hooks.—6. Reflexion of the peritonæum, from the under surface of the diaphragm on to the liver, forming the coronary ligament of the liver. The liver is cut vertically, and the gall bladder raised.—7. Stomach, from the anterior surface of which the peritonæum is reflected over the spleen, forming,—8. The gastro-splenic omentum.—9. The reflexion of peritonæum from the stomach over the liver, forming the gastro-hepatic omentum.—10. Great omentum.—11. Foramen of Winslow, bounded above by the lobulus Spigelii of the liver, below by the duodenum, in front by the lesser omentum, enclosing the vena portæ, hepatic artery and ductus communis choledochus, and behind by the vena cava inferior.—12. Cavity of lesser omentum.—13. Reflected portion of great omentum.—14. Reduplication of the great omentum to enclose the transverse colon.—15. Reunion of the two layers to form the transverse meso-colon; its superior layer covers partly,—16. The duodenum.—17. The pancreas, and ascends to the foramen of Winslow. Its inferior layer goes to form,—18. The mesentery, which envelopes,—19. The small intestines.—20. The two layers of the mesentery and the small intestines, cut.—21. Meso-rectum.—22. Reflexion of the peritonæum, from the rectum over the vagina.—23. Large intestine, cut; below is shown the neck of the uterus and the vagina open.—24. Reflexion of the peritonæum from the uterus on to the posterior wall of the bladder.—25. Reflexion of peritonæum over the remains of the uræthrus, forming the suspensory ligament of the bladder.

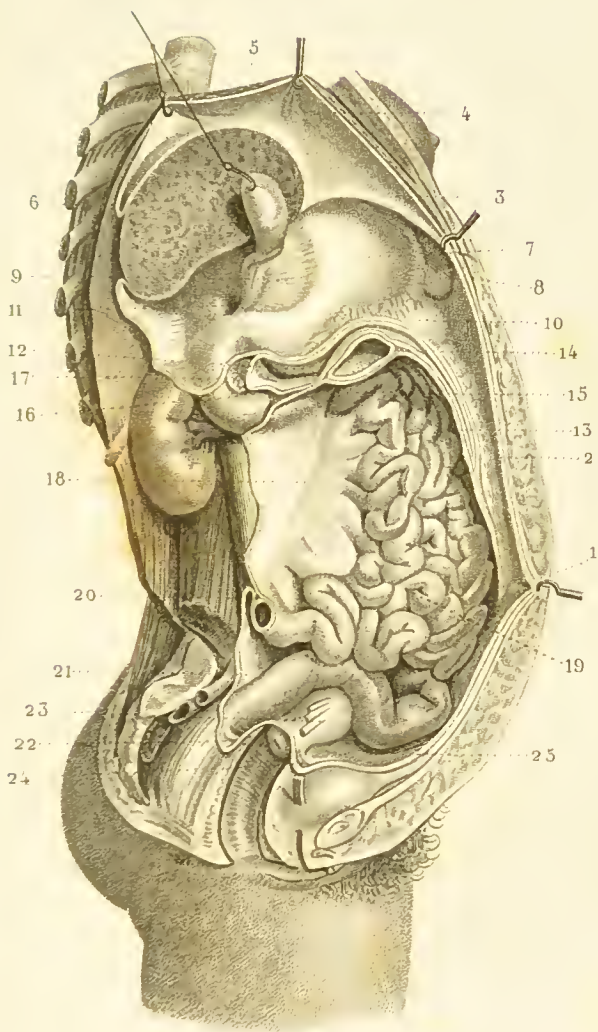


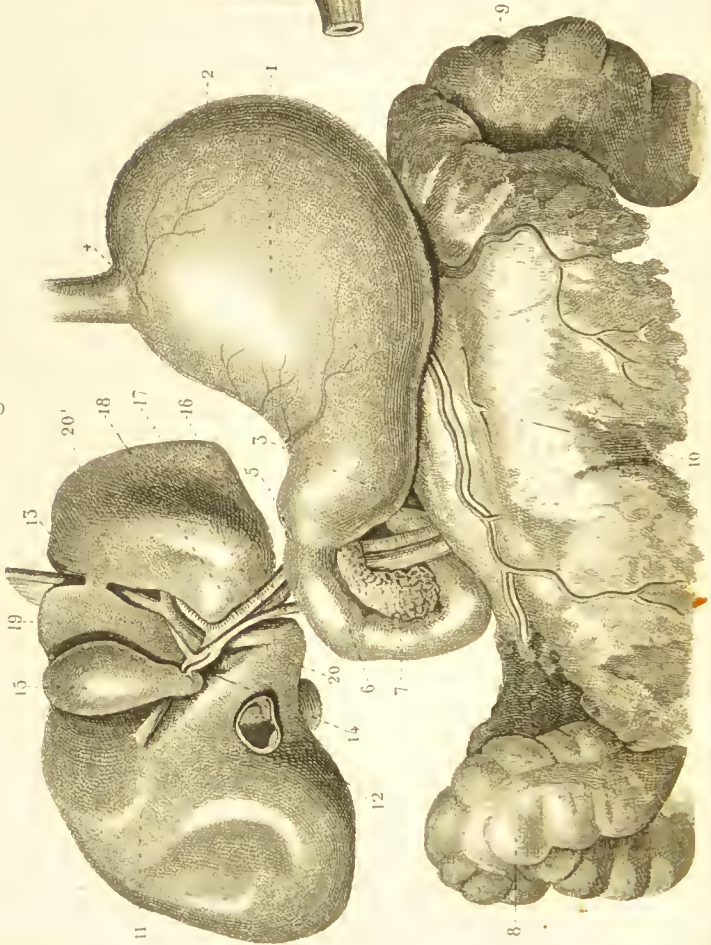




Fig 2



Fig. 1





## PLATE LII.

### SPLANCHNOLOGY, PLATE X.

*Fig. 1.* STOMACH AND DUODENUM SEEN IN FRONT, AND THE UNDER SURFACE OF THE LIVER.

1. Stomach.—2. Cardiac extremity.—3. Pyloric extremity.—4. Cardiac orifice.—5. Pyloric orifice.—6. Duodenum.—7. Head of pancreas.—8 and 9. Portions of large intestine.—10. Portion of great omentum.—11. Inferior surface of great lobe of liver.—12. Fissure for vena cava inferior.—13. Fissure for the obliterated umbilical vein (longitudinal).—14. Fissure for the vena portæ (transverse), containing also the branches of the hepatic artery and duct.—15. Gall-bladder, terminating in the cystic duct, which afterwards unites with the hepatic duct, forming,—16, The ductus communis choledochus.—17. Vena portæ.—18. Hepatic artery.—19. Lobulus quadratus.—20. Lobulus Spigelii.—20'. Left lobe.

*Fig. 2.* STOMACH, FROM WHICH THE SEROUS MEMBRANE HAS BEEN REMOVED TO SHOW THE DISPOSITION OF THE MUSCULAR FIBRES.

1 and 2. Fibres descending from the œsophagus over the lesser curvature.—3. Muscular fibres distributed in various directions.



PLATE LIII.

SPLANCHNOLOGY, PLATE XI.

*Fig. 1.* PORTION OF ŒSOPHAGUS AND STOMACH, SEEN FROM THEIR INTERNAL SURFACE.

1. Mucous membrane of Œsophagus.—2. Mucous membrane of stomach.—3. Line of separation between the stomach and Œsophagus, marked by an irregularity in the folds of the mucous membrane at the cardiac orifice.

*Fig. 2.* PYLORUS.

*Fig. 3.*—1. Convolutions of the small intestine.—2. Cæcum, receiving the termination of the small intestine, and having attached to it the appendix vermiformis cæci.—3. Ascending colon.—4. Transverse colon.—5. Descending colon.—6. Sigmoid flexure of colon.—7. Commencement of rectum.—8. Appendices epiploicæ.

Fig. 3.

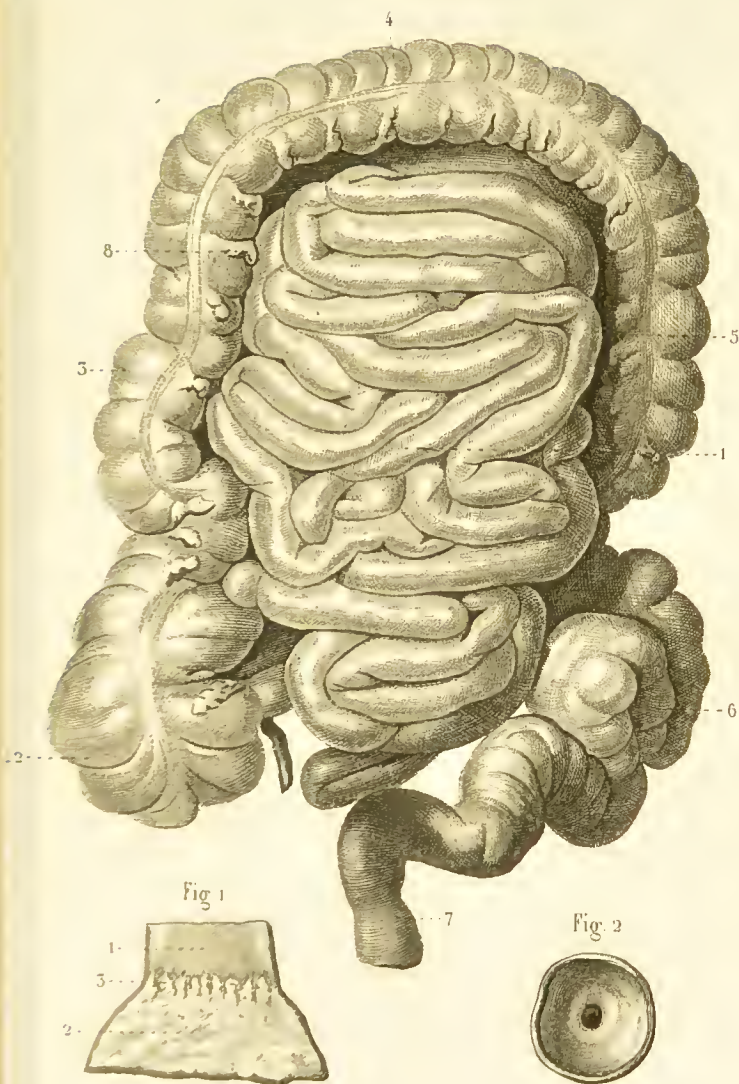


Fig. 1

Fig. 2

Fig 1

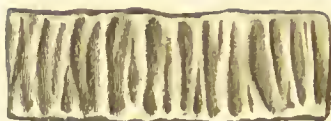


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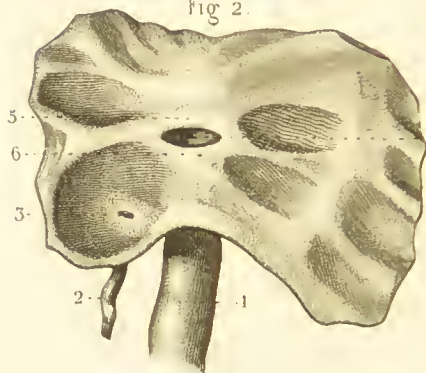


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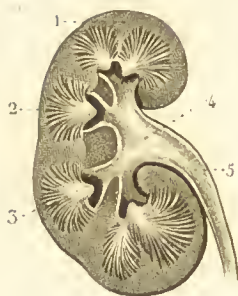


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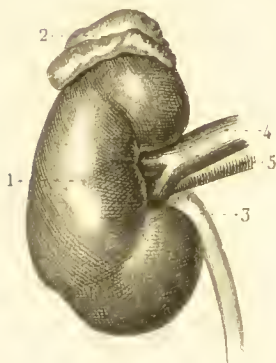


Fig. 3.



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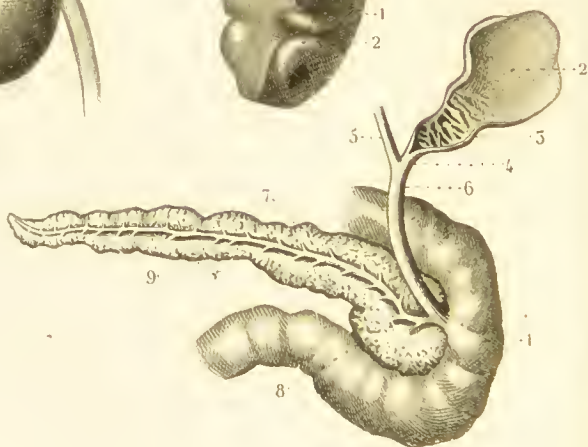


PLATE LIV.

SPLANCHNOLOGY, PLATE XII.

*Fig. 1.* PORTION OF SMALL INTESTINE OPENED TO SHOW THE VALVULE CONNIVENTES, OR VALVES OF KERKRING.

*Fig. 2.* CÆCUM OPEN.

1. Inferior extremity of ilium.—2. Appendix vermiformis.—3. Orifice of appendix vermiformis.—4. Opening of ilium into the cœcum.—5 and 6. Portions of the ileo-cæcal valve.

*Fig. 3.* SPLEEN.

1 and 2. Indentations frequently seen in the margin of the spleen.—3 and 4. Foramina for the entrance of the splenic artery.

*Fig. 4.* BILE DUCTS AND PANCREATIC DUCTS SEEN FROM BEHIND.

1. Duodenum. 2. Gall bladder open.—3. Crescentic folds of mucous membrane, disposed somewhat spirally.—4. Cystic duct.—5. Hepatic duct.—6. Ductus communis choledochus.—7. Pancreas.—8. Head of pancreas.—9. Pancreatic duct.

*Fig. 5.*—1. Kidney.—2. Supra-renal capsule.—3. Ureter.—4. Renal vein.—5. Renal artery.

*Fig. 6.* SECTION OF KIDNEY.

1. Cortical substance.—2. Pyramid.—3. Calyx.—4. Pelvis of kidney.—5. Ureter.

## PLATE LV.

### SPLANCHNOLOGY, PLATE XIII.

#### GENITO-URINARY ORGANS OF THE MALE, ETC.

##### *Fig. 1.* STRUCTURE OF KIDNEY.

1. Cortical substance (*tubes of Ferrein*).—2. Medullary substance (*tubes of Bellini*).—3. Orifices of these tubes at the summit of a pyramid into a calyx.

##### *Fig. 2.* SIDE VIEW OF PELVIC VISCERA.

The right side of the pelvis is removed by a section through the middle of the sacrum and symphysis pubis.

1. Pelvic fascia, forming the anterior true ligaments of the bladder (pubo-prostatic). 2. Triangular ligament (deep perineal fascia).—3. Deep layer of superficial fascia.—4. Superficial layer of superficial fascia.—5. Scrotum.—6. Dartos.—7. Testicle enclosed in the tunica vaginalis.—8. Spermatic cord.—9. Spermatic vessels.—10. Vas deferens.—11. Vesicula seminalis.—12. Prostate.—13. Cowper's gland.—14. Prepuce.—15. Frenum preputii.—16. Suspensory ligament of penis.—17. Corpus cavernosum penis.—18. Canal of the urethra. The membranous portion is seen behind, between the two layers of the triangular ligament (1 and 2) (pelvic fascia and deep perineal), and the bulbous portion or bulb is seen in front of the anterior layer of triangular ligament (*Fig. 2*) covered by the deep layer of superficial fascia.—19. Ureter.—20. Bladder.—21. Urachus.—22. Rectum. The peritonæum is shown reflected from the bladder on to the rectum, and below is seen the anus and the external sphincter.

##### *Fig. 3.* THE BLADDER IS HOOKED FORWARD, AND THE RECTUM PULLED BACKWARDS.

1. Inferior surface of bladder (base).—2. Vas deferens.—3. Vesicula seminalis.—4. Prostate.—5. Layer of fascia separating the bladder from,—6. The rectum.

##### *Fig. 4.* THIS PLATE SHOWS THE POSITION OF THE OPENINGS INTO THE PROSTATIC URETHRA, AND THE EJACULATORY DUCTS.

1. Prostate.—2. Neck of bladder. The process of fascia reflected off the bladder and enveloping the gland (*capsule*) has been removed.—3. Entrance of ejaculatory duct.

*Fig. 5.*—1. Vas deferens.—2. Ejaculatory duct. The prostate is opened to show its position.—3. Vesicula seminalis partly unravelled.



Fig 1

Fig 4

Fig 3.

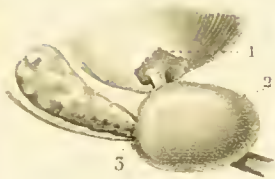
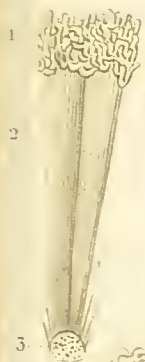


Fig 5.

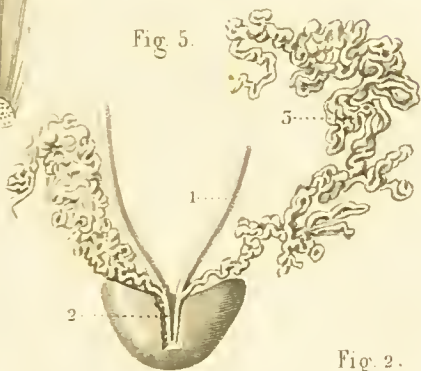


Fig 2.

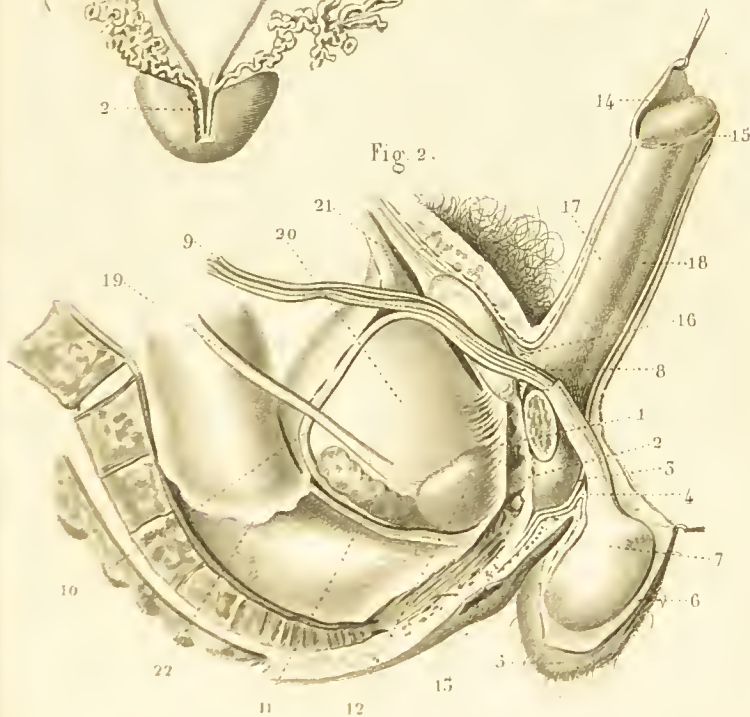








Fig 1.

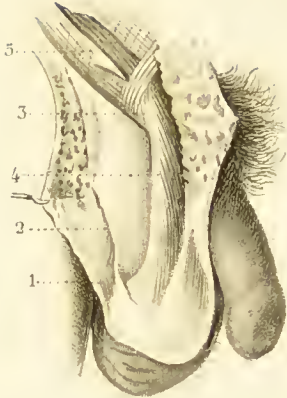


Fig 2

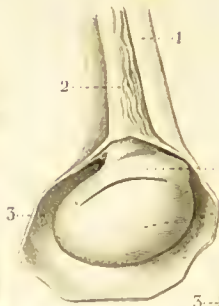


Fig 3.



Fig 8



Fig 6

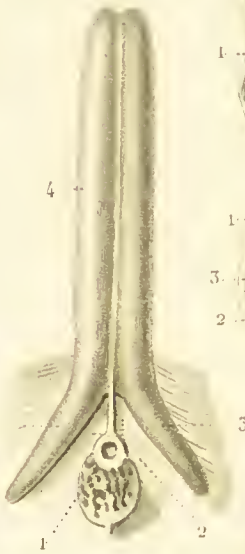


Fig 7.



Fig 9.

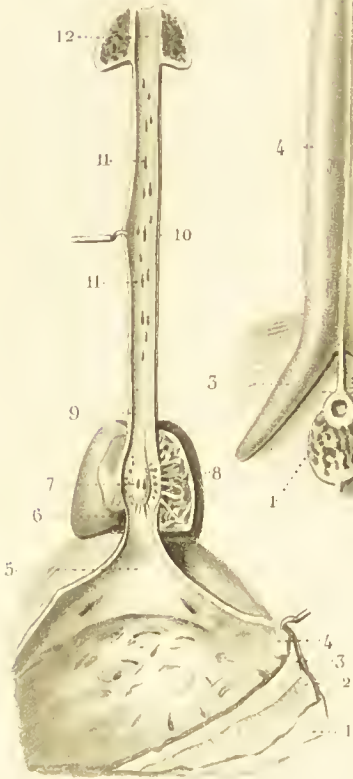
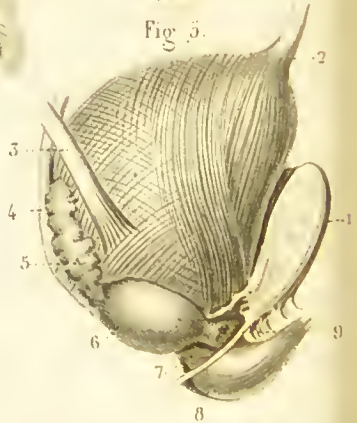


Fig 5.



## PLATE LVI.

### SPLANCHNOLOGY, PLATE XIV.

#### GENITO-URINARY ORGANS OF THE MALE.

##### *Fig. 1.* COVERINGS OF THE TESTICLE.

1. Scrotum.—2. Dartos.—3. Intercolumnar fascia (derived from the intercolumnar bands).—4. Cremaster muscle.—5. Inguinal canal, open.

*Fig. 2.*—1. Fibrous coat.—2. Spermatic cord.—3. Tunica vaginalis testis.—4. Right testicle.—5. Epididymis.

##### *Fig. 3.* SECTION OF TESTICLE.

1. Tunica albuginea.—2. Lobules of testicle.—3. Vasa recta.—4. Mediastinum testis, or corpus Highmoriani.—5. Vasa efferentia.—6. Epididymis.—7. Vas deferens.—8. Vessels of spermatic cord.

##### *Fig. 4.* VERTICAL SECTION OF TESTIS.

1. Testicle.—2. Epididymis.—3. Spermatic cord.

##### *Fig. 5.* BLADDER SEEN FROM THE RIGHT SIDE.

1. Symphysis pubis.—2. Muscular coat of bladder, and urachus.—3. Ureter.—4. Vas deferens.—5. Vesicula seminalis.—6. Prostate.—7. Membranous portion of urethra.—8. Bulb.—9. Vascular plexus (prostatic).

##### *Fig. 6.* CORPUS CAVERNOSUM PENIS, SEEN FROM BELOW.

1. Urethra and bulb, cut.—2. Triangular ligament (anterior layer).—3, 3. Crura penis.—4. Corpus cavernosum.

##### *Fig. 7.* TRANSVERSE SECTION OF PENIS.

1. Skin; under the skin are seen the dorsal vessels and nerve of the penis.—2. Fibrous investment of corpus cavernosum.—3. Septum pectiniforme.—4. Urethra.—5. Corpus cavernosum.—6. Artery of corpus cavernosum.

##### *Fig. 8.* THE RIGHT HALF OF THE CORPUS CAVERNOSUM IS REMOVED.

1. Left crus penis.—2. Fibrous investment of corpus cavernosum.—3. Septum.

##### *Fig. 9.* THE BLADDER AND URETHRA ARE SPLIT OPEN ABOVE.

1. Peritonæum.—2. Muscular coat of bladder.—3. Cellular coat.—4. Mucous membrane of bladder.—5. Trigone vesicæ, bounded by the orifices of the ureters and the verumontanum.—6. Prostatic portion of urethra.—7. Verumontanum; the common ejaculatory ducts open on either side of it, and the openings of the prostatic ducts are also shown.—8. Prostatic ducts.—9. Membranous portion of urethra.—10. Spongy portion.—11, 11. Lacunæ.—12. Fossa navicularis.

PLATE LVII.

SPLANCHNOLOGY, PLATE XV.

*Fig. 1.* ORGANS OF GENERATION OF THE FEMALE.

1. Broad ligament of the uterus.—2 and 3. Round ligament of uterus.—4. Ovary and its ligament.—5. Fallopian tube, terminated by a fimbriated extremity (*morsus diaboli*).—6. Uterus.—7. Neck of uterus.—8. Os tinæ.

*Fig. 2.* SECTION OF UTERUS (*posterior half*).

1. Cavity of uterus.—2. Fallopian tubes.—3. Neck of uterus, showing the *arbor vitæ*.—4. Ligament of ovary.

*Fig. 3.* LATERAL SECTION OF UTERUS (*left half*).

1. Anterior lip of os tinæ.—2. Posterior lip.

*Fig. 4.* SIDE VIEW OF FEMALE PELVIS.

1. Bladder.—2. Urachus.—3. Anterior ligament of bladder.—4. Urethra.—5. Rectum.—6. Folds at the inferior extremity of rectum.—7. Fallopian tube.—8. Ovary.—9. Uterus. The peritonæum, shown reflected from it over the bladder and rectum.—10. Vagina.—11 and 12. Anterior and posterior walls of vagina.—13. Clitoris.

*Fig. 5.* EXTERNAL ORGANS OF GENERATION, PUDENDA.

1. Mons veneris.—2. Labia majora.—3. Labia minora; as these converge towards the glans clitoridis, they divide into two folds, the superior forming the præputium clitoridis, and the inferior going to the base of the glans clitoridis, and forming the frænum.—4. Clitoris.—5. Vestibule.—6. Meatus urinarius.—7. Entrance to the vagina.—8. Fourchette.—9. Fossa navicularis.—10. Anus.—11. Perinæum.

*Fig 6.*—1 and 2. Labia minora.—3. Clitoris, crus and glans.—4. Suspensory ligament of clitoris.—5. Bulb of vagina, terminating in the glans clitoridis (*semi-bulb*).

Fig. 2

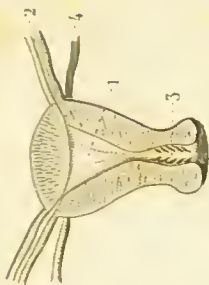


Fig. 6

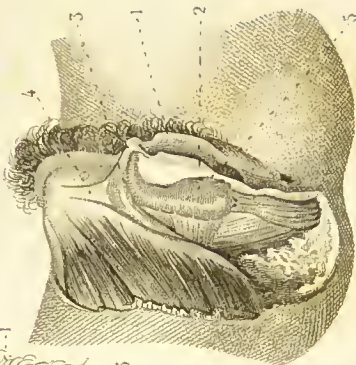


Fig. 3



Fig. 4

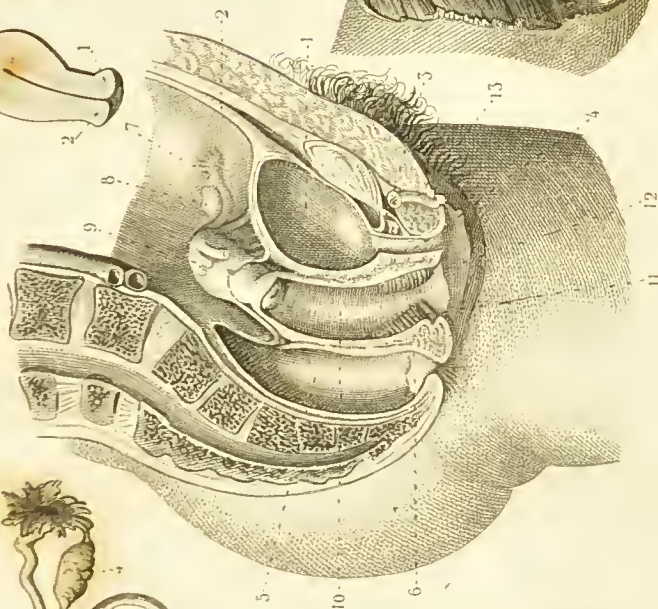
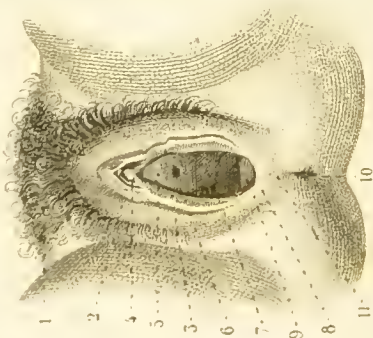


Fig. 1



Fig. 5







## PLATE LVIII.

### VASCULAR SYSTEM, PLATE I.

HEART. ARCH OF AORTA. INNOMMINATA. CAROTID AND SUBCLAVIAN ARTERIES, ETC.

1. Heart.—2. Anterior coronary artery.—3. Posterior coronary artery.—4. Pulmonary artery, cut.—5. Arch of aorta.—6. Innomminata.—7. Right common carotid.—8. Left subclavian. — 9. Division of innomminata into subclavian and common carotid.—10. Division of common carotid into external and internal carotid. — 11. Superior thyroid and its principal branches. — 12. Lingual. — 13. Facial. — 14. Inferior palatine.—15. Submental.—16. Inferior coronary.—17. Superior coronary.—18. Lateralis nasi.—19. Occipital and its mastoid branch.—20. Posterior auricular and its stylo-mastoid branch.—21. Ascending pharyngeal.—22. Division of external carotid into internal maxillary and superficial temporal.—23. Transverse facial.—24. Anterior auricular.—25. Middle temporal.—25'. Inferior thyroid and ascending cervical.—26. Vertebral. — 27. Position of transverse process of sixth cervical vertebra, where the vertebral artery enters its canal.—28. Superior intercostal.—29. Supra-scapular.—30. Transversalis colli.—31. Internal mammary. — 32. Anterior mediastinal. — 33. Musculophrenic.



## PLATE LIX.

### VASCULAR SYSTEM, PLATE II.

#### *Fig. 1.* LINGUAL ARTERY.

1. Hyoid bone.—2. Hyo-glossus, cut to show the course of the lingual artery.—3, 3. Stylo-glossus.—4. Genio-hyo-glossus.—5. External carotid.—6. Lingual.—6'. Dorsalis linguæ.—7. Sublingual.

#### *Fig. 2.* INTERNAL MAXILLARY.

The left side of the cranium, the superior part of the lower jaw, and the external wall of the orbit have been removed.

1. External carotid. 2. Occipital and its mastoid branch.—3. Posterior auricular and its stylo-mastoid branch.—4. Superficial temporal and anterior auricular branches.—5. Middle temporal.—6. Internal maxillary, middle meningeal, and lesser meningeal.—6'. Divisions of the middle meningeal.—6'', 6''. Anterior meningeal branches of the ophthalmic.—6''', 6'''. Posterior meningeal.—7. Inferior dental.—8. Masseteric.—9. Pterygoid.—10. Buccal.—11. Facial, anastomosing with the buccal.—12. Alveolar and posterior dental branches.—13. Infra-orbital.—13'. Infra-orbital, emerging from the infra-orbital foramen.—14, 14. Deep temporal.—15. Internal maxillary, disappearing in the pterygo-maxillary fossa.

#### *Fig. 3.* INTERNAL MAXILLARY IN THE PTERYGO-MAXILLARY FOSSA.

1. External pterygoid plate.—2. Infra-orbital.—3. Descending palatine.—4. Vidian.—5. Pterygo-palatine.

*Fig. 4.* OPHTHALMIC ARTERY.—Side of orbit removed, and carotid canal opened.

1. Anterior dental artery in its canal.—2. Posterior dental branches.—3. Internal carotid.—4. Ophthalmic.—5. Arteria centralis retinæ.—6. Lachrymal.—7. Muscular.—8. Supra-orbital.—9. Long ciliary.—10. Anterior ciliary.—11, 11. Ethmoidal giving off the anterior meningeal.—12. Palpebral.—13. Termination of ophthalmic in frontal and nasal.

#### *Fig. 5.* OPHTHALMIC ARTERY ; THE EYE-BALL REMOVED.

1. Ophthalmic.—2. Inferior muscular.—3. Superior palpebral.—Inferior palpebral.

Fig. 2.

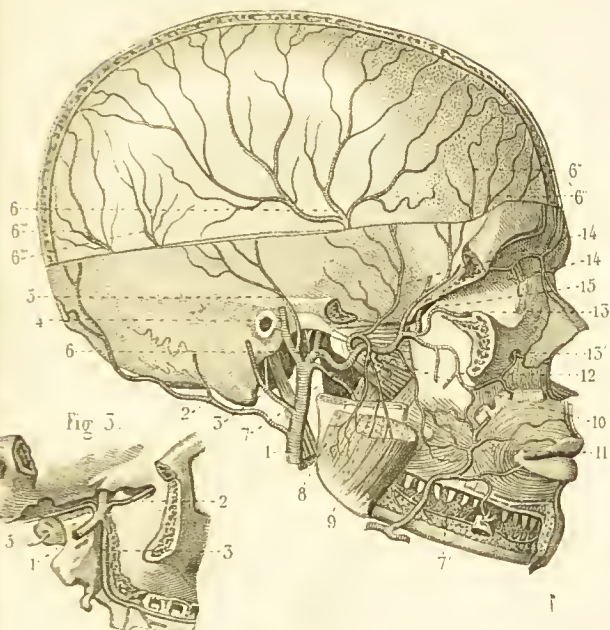


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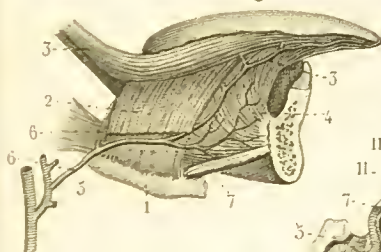


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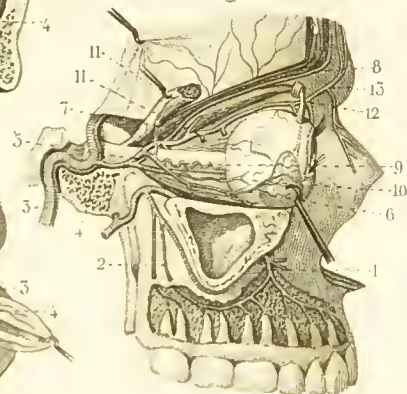
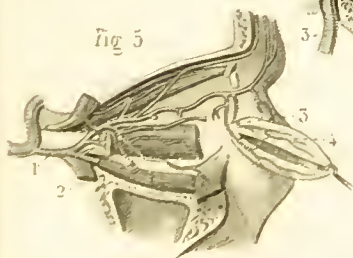


Fig 5





J. W. ROBERT,  
SURGEON,  
STANDISH HOUSE,  
HYDE.

Fig 3.

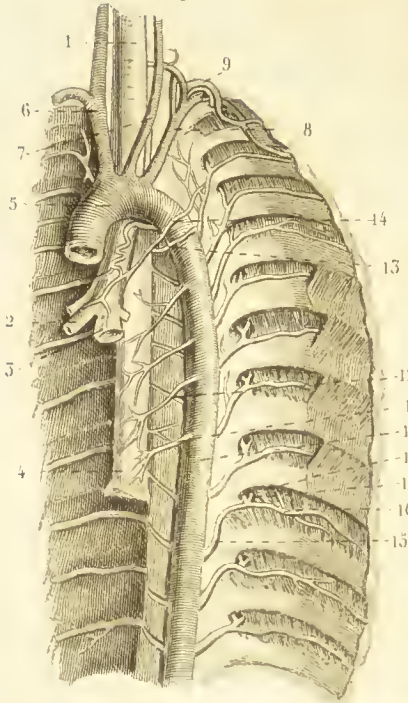


Fig 2

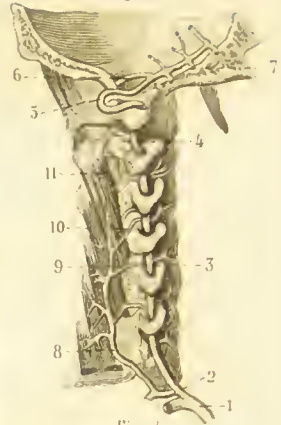


Fig 4

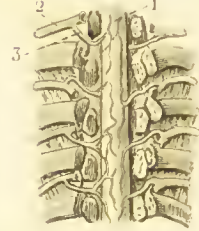
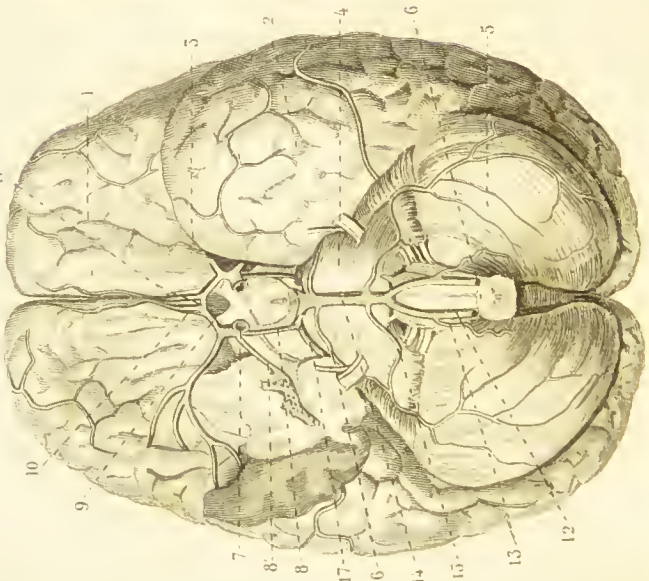


Fig 1



## PLATE LX.

### VASCULAR SYSTEM, PLATE III.

#### *Fig. 1.* ARTERIES OF THE CEREBRUM, CEREBELLUM, ETC.

1. Anterior lobe of cerebrum.—2. Middle lobe.—3. Fissure of Sylvius.—4. Pons Varolii.—5. Cerebellum.—6. Medulla oblongata.—7. Internal carotid.—8. Posterior communicating.—8'. Anterior choroid.—9. Anterior cerebral.—10. Anterior cerebral.—11. Anterior communicating.—12. Vertebral.—13. Inferior and posterior cerebellar.—14. Basilar.—15. Anterior and inferior cerebellar.—16. Superior cerebellar.—17. Posterior cerebral, anastomosing with the internal carotid by the posterior communicating. The motor oculi nerve lies between it and the superior cerebellar artery.

#### *Fig. 2.* VERTEBRAL AND DEEP CERVICAL ARTERIES.

1. Subclavian.—2. Common trunk of the vertebral and deep cervical arteries.—3. Vertebral artery in its canal.—4. Vertical curvature of the vertebral artery.—5. Horizontal curvature.—6. Vertebral artery in the cranium.—7. Basilar and branches.—8. Deep cervical.—9 and 10. Anastomoses of this artery with the vertebral.—11. Inter-spinalis muscle.

#### *Fig. 3.* ARCH AND THORACIC PORTION OF AORTA.

1. Trachea.—2 and 3. Bronchi.—4. Oesophagus.—5. Arch of aorta.—6. Innominata.—7. Left common carotid.—8. Left subclavian.—9. Superior intercostal.—10. Thoracic aorta.—11 and 12. Oesophageal branches.—13 and 14. Bronchial artery.—15 and 16. Aortic intercostals.—17. Dorsal branch, giving off,—18. Spinal branches.

*Fig. 4.* SPINAL ARTERIES.—The bodies of the vertebræ and the vertebral canal are open in front.

1. Spinal cord and its membranes.—2. Intercostal artery.—3. Spinal artery, giving off branches to the walls of the spinal canal, the cord, and its membranes.



## PLATE LXI.

### VASCULAR SYSTEM, PLATE IV.

*Figs. 1 and 2.* ARTERIES OF THE AXILLA—ARM AND HAND.

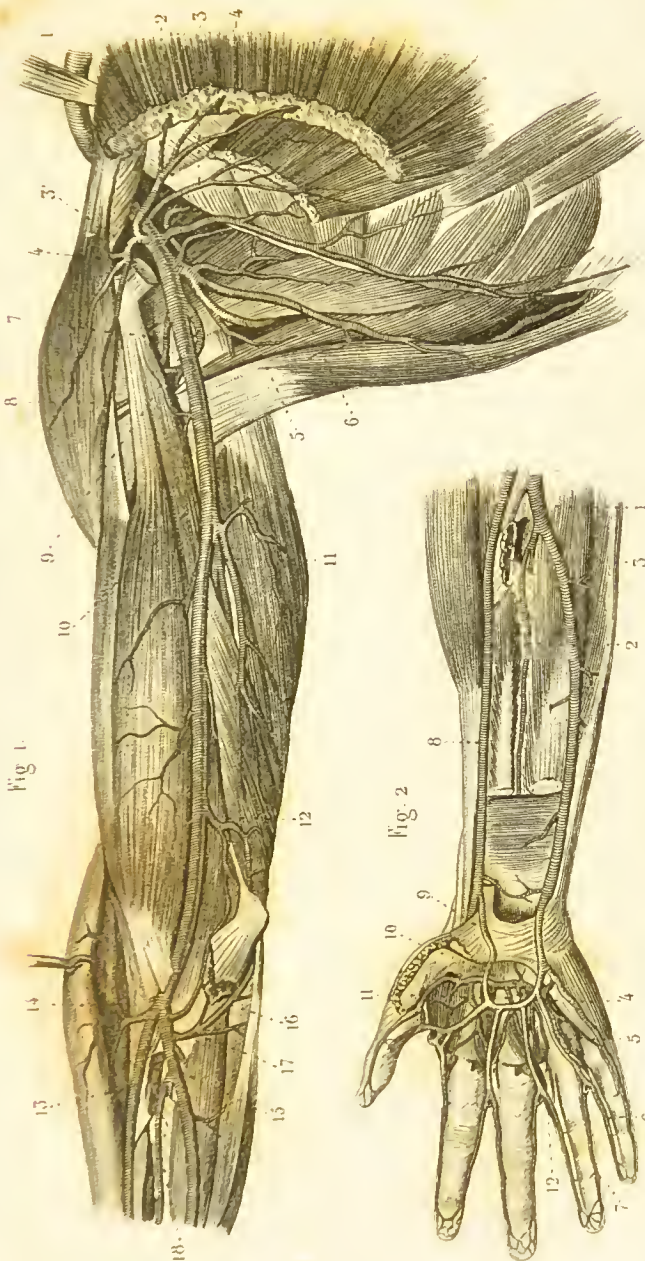
*Fig. 1.*—1. Scalenus anticus muscle, passing in front of the subclavian artery.—2 and 3. Anterior thoracic.—3'. Acromio thoracic.—4. Long thoracic, or external mammary.—5. Subscapular, giving off the dorsalis scapulæ.—6. Anterior division of the subscapular.—7 and 8. Anterior circumflex.—9. Posterior circumflex.—10. Brachial.—11. Superior profunda.—12. Anastomotica magna.—13. Radial.—14. Anterior radial recurrent.—15. Ulnar.—16. Anterior ulnar recurrent.—17. Branch of anterior ulnar recurrent to pronator radii teres.—18. Anterior interosseus.

*Fig. 2.*—1. Ulnar.—2. Anterior interosscus.—3. Posterior interosscus.—4. Superficial palmar arch.—5, 6, and 7. Digital arteries.—8. Radial.—9. Superficialis volæ.—10. Deep palmar arch.—11. Posterior perforating.—12. Anterior perforating.

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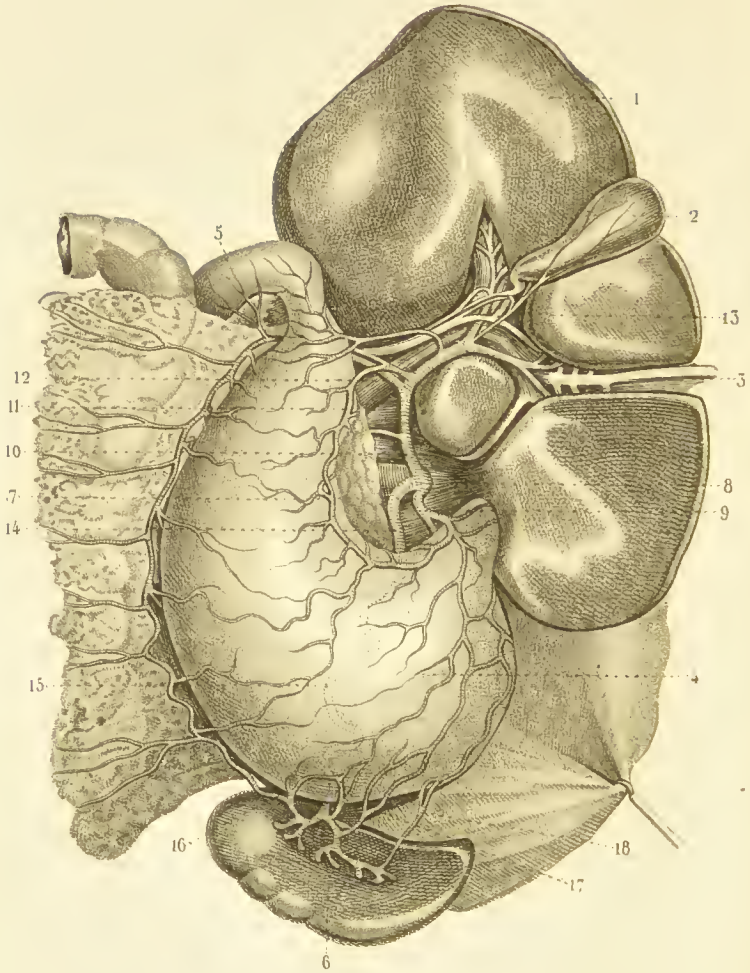
NOTE.—The Fig. 4, placed between Figs. 7 and 3', refers to the trunk of the subscapular.











## PLATE LXII.

### VASCULAR SYSTEM, PLATE V.

CÆLIAC AXIS.—The liver is turned up so as to show its inferior surface.

1. Liver.—2. Gall bladder.—3. Remains of umbilical vein.—4. Stomach.—5. Commencement of duodenum.—6. Spleen.—7. Pancreas.—8. Cæliac axis.—9. Gastric, or coronaria ventriculi, giving off œsophageal branches, and coursing along the lesser curvature of the stomach.—10. Hepatic.—11. Pyloric.—12. Gastro-epiploica dextra, descending behind the duodenum, and coursing along the greater curvature of the stomach.—13. Cystic.—14. Splenic.—15. Dotted line showing the course of the splenic artery behind the stomach.—16. Gastro-epiploica sinistra.—17 and 18. Vasa brevia.

## PLATE LXIII.

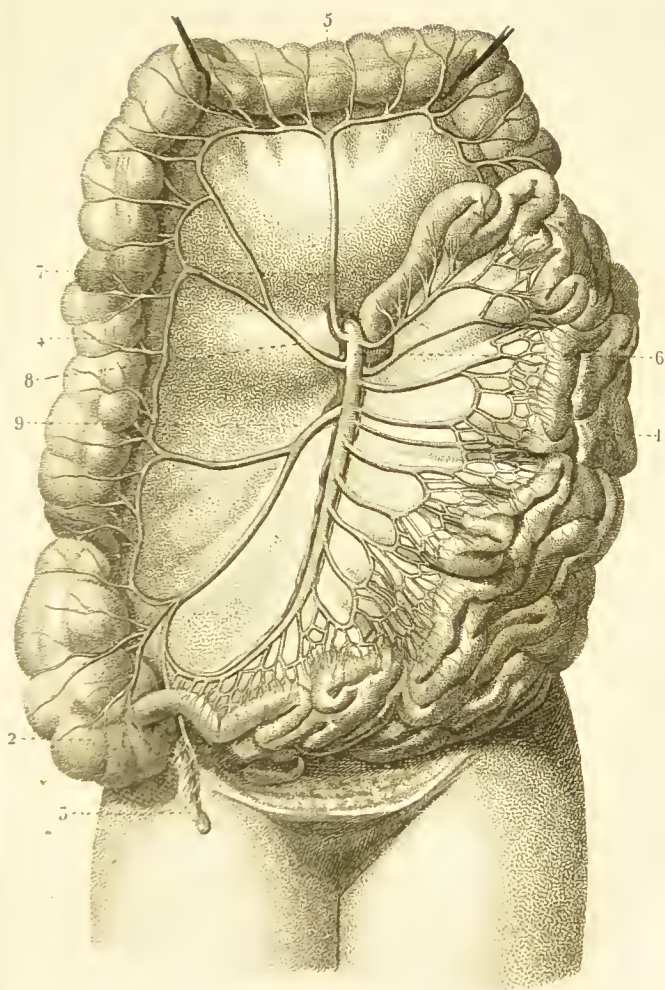
### VASCULAR SYSTEM, PLATE VI.

#### SUPERIOR MESENTERIC ARTERY.

The small intestine is pushed out of the way, downwards and towards the left side, and the large intestine lifted up and drawn towards the right side.

1, 1. Small intestine.—2. Cæcum.—3. Vermiform appendix.—4. Ascending colon.—5. Transverse colon.—6. Superior mesenteric artery, giving off in its convexity the arteries to the small intestine, and showing the peculiar festoon-like arrangement before final distribution.—7, 8, and 9. Colica dextra.







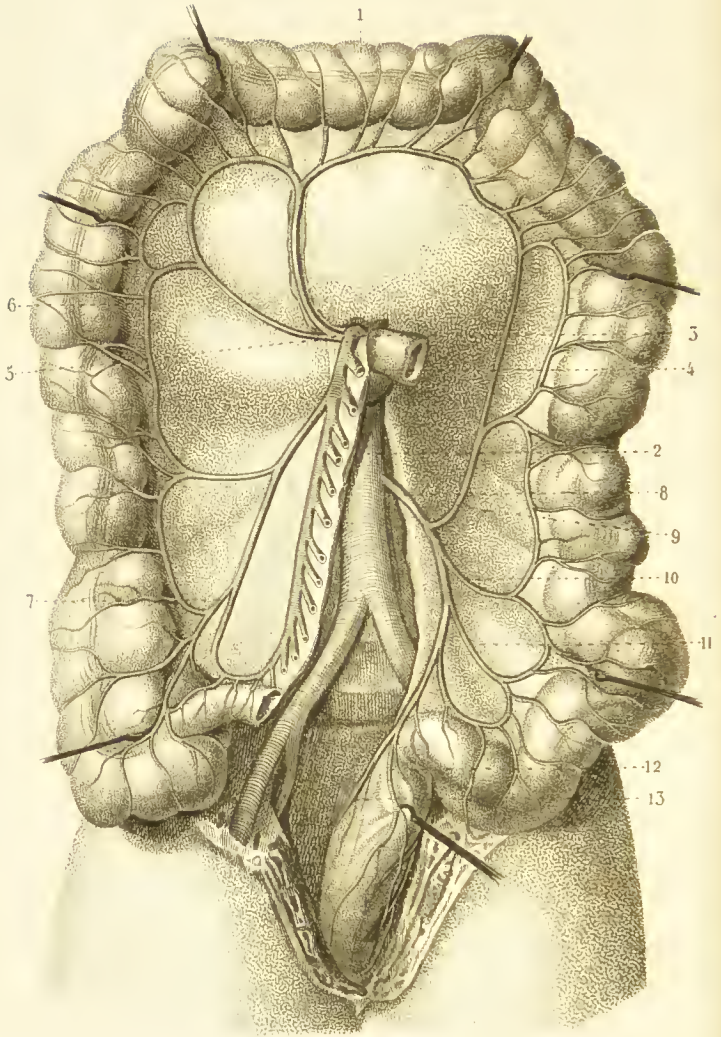


PLATE LXIV.

VASCULAR SYSTEM, PLATE VII.

DISTRIBUTION OF ARTERIES TO THE LARGE INTESTINE.

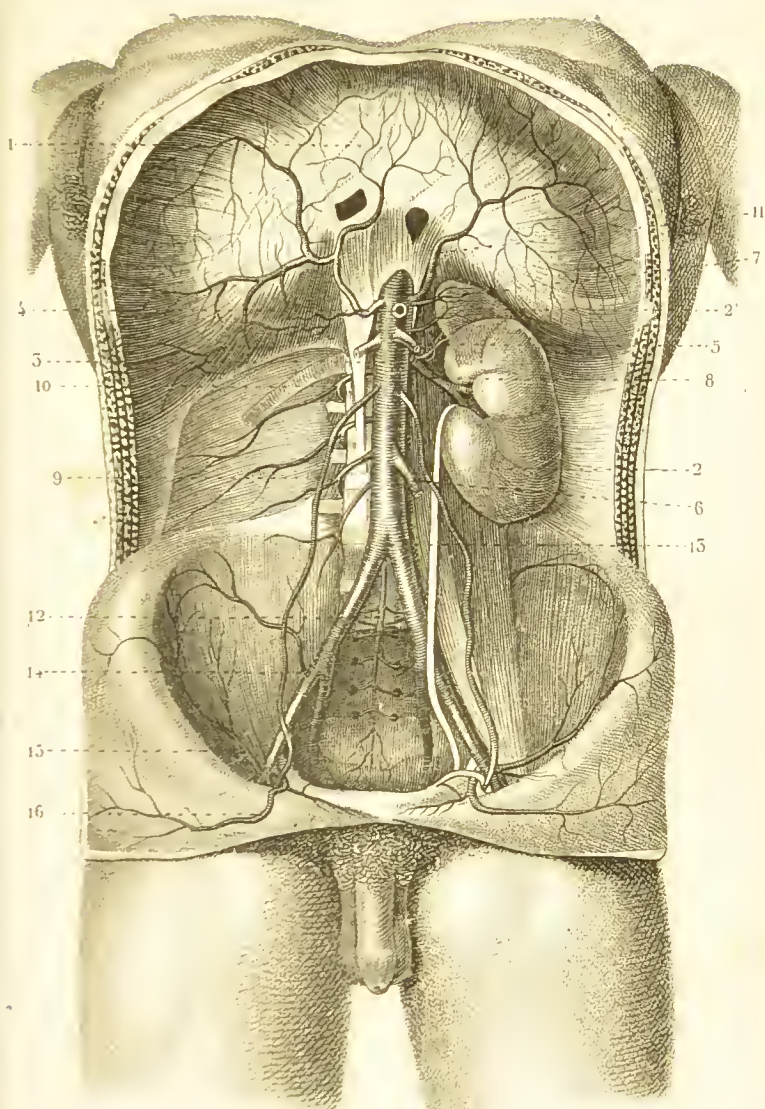
1. Large intestine.—2. Aorta.—3. Superior mesenteric.—  
4. Branches to small intestine, cut close to origin.—5. Superior  
division of colica dextra.—6. Middle division of colica dextra.—  
7. Inferior division of colica dextra.—8. Inferior mesenteric.—  
9 and 10. Colica sinistra.—11. Sigmoides.—12 and 13. Superior  
hæmorrhoidal.

PLATE LXV.

VASCULAR SYSTEM, PLATE VIII.

ABDOMINAL AORTA AND BRANCHES.

1. Diaphragm.—2. Kidney.—2'. Supra-renal capsule.—
3. Aorta.—4. Cæliac axis, cut.—5. Superior mesenteric, cut.—
6. Inferior mesenteric, cut.—7. Arterial supply of supra-renal capsule; the superior is derived from the phrenic, the middle from the aorta, and the inferior from the renal.—8. Renal.—
9. Spermatic.—10. Lumbar.—11. Phrenic or diaphragmatic.—
12. Middle sacral.—13. Division of aorta into the common iliacs.—14. Division of common iliac into external and internal iliac.—15. Circumflex iliac (*deep*).—16. Epigastric (*deep*).



J. W. ROBEY,  
SURGEON,  
STANDISH HOUSE,  
HYDR.





Fig 1

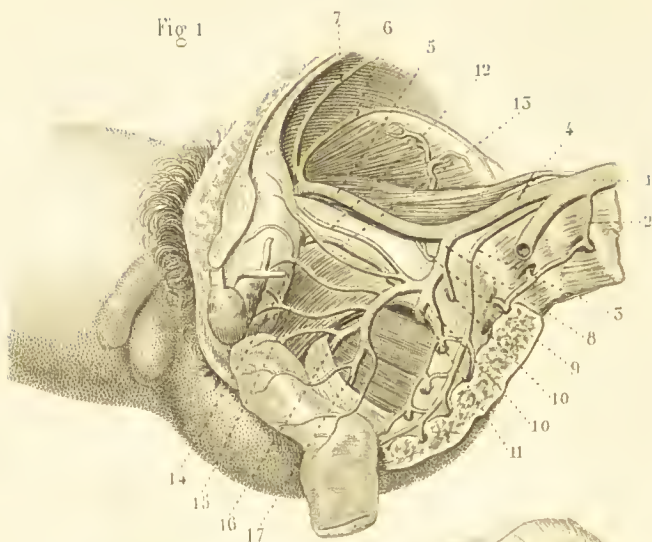


Fig 2.

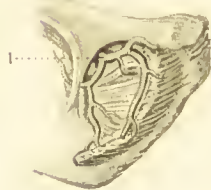
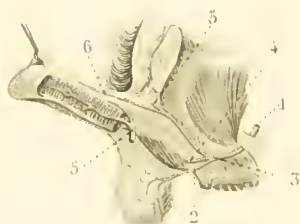


Fig 4



Fig 5





## PLATE LXVI.

### VASCULAR SYSTEM, PLATE IX.

*Fig. 1.* TERMINATION OF AORTA ; COMMON, EXTERNAL, AND INTERNAL ILIACS.—SIDE VIEW OF THE ARTERIES OF THE PELVIS.

1. Aorta.—2. Last lumbar artery.—3. Middle sacral.—4. Common iliac.—5. Right external iliac.—6. Deep circumflex iliac.—7. Epigastric.—8. Internal iliac.—9. Ilio-lumbar.—10. Lateral sacral.—11. Gluteal.—12. Obliterated hypogastric.—13. Obturator.—14. Middle vesical.—15. Inferior vesical. (N.B.—The superior vesical is seen coming off from the obliterated hypogastric.)—16. Internal pudic.—17. Ischiatic.

*Fig. 2.*—1. Obturator artery, dividing into two chief branches circumscribing the obturator foramen.

*Fig. 3.* INTERNAL PUDIC.—The rectum is turned down, and the corpus cavernosum penis of the left side opened.

1. Internal pudic, re-entering the pelvis through the lesser ischiatic notch, dividing into,—2. Perineal branches.—3. Artery to bulb.—4. Transverse artery of perinæum.—5, 5. Arteries of corpus cavernosum.—6. Dorsal artery of penis. (The artery to Cowper's gland is not shown in the plate ; it comes off from the artery to the bulb.)

*Fig. 4.* GLUTEAL AND ISCHIATIC ARTERIES, SEEN AFTER THE REMOVAL OF THE GLUTÆI AND HAMSTRING MUSCLES.

1. Gluteal artery.—2. Ischiatic.—3. Internal circumflex.—4, 4, 4. Perforating branches of profunda.—5 and 6. Terminal branches of profunda.

NOTE.—In *Fig. 1*, the deep epigastric and deep circumflex iliac arise from common trunk.

## PLATE LXVII.

### VASCULAR SYSTEM, PLATE X.

#### *Fig. 1.* ARTERIES OF THE MALE PERINÆUM.

1. Gluteus maximus, cut.—2. Great sacro-sciatic ligament, cut.—3. Lesser sacro-sciatic ligament.—4. External sphincter.—5. Transversus perinei.—6. Erector penis.—7. Accelerator urinæ.—8. Urethra.—9. Dartos.—10. Trunk of internal pudic.—11 and 12. Inferior hæmorrhoidal.—13. Perineal branches.—14. Artery to bulb.—15. Transverse artery of perinæum.—16. Dorsal artery of penis.—17. Artery to corpus cavernosum.

#### *Fig. 2.* ARTERIES OF THE FEMALE PERINÆUM.

1. Gluteus maximus muscle.—2. External sphincter.—3. Constrictor virginæ.—4. Meatus urinarius.—5. Clitoris.—6. Internal pudic.—7 and 8. Inferior hæmorrhoidal.—9 and 10. Perineal—11. Dorsal artery of clitoris.—12. Artery to corpus cavernosum clitoridis.

Fig 2.

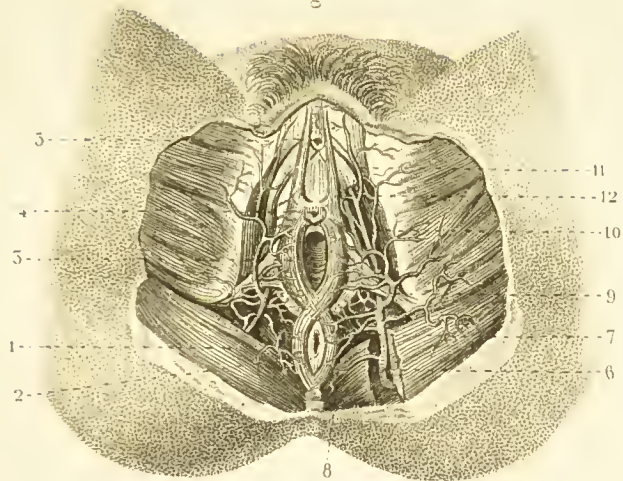


Fig 1.

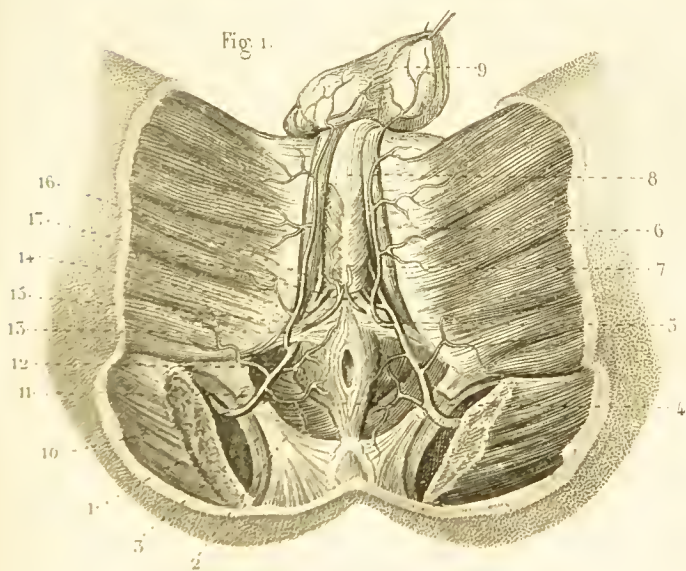






Fig. 1.

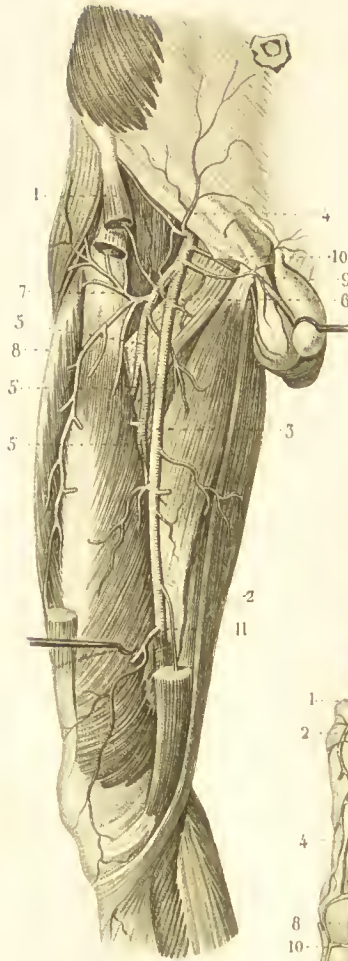


Fig. 2.

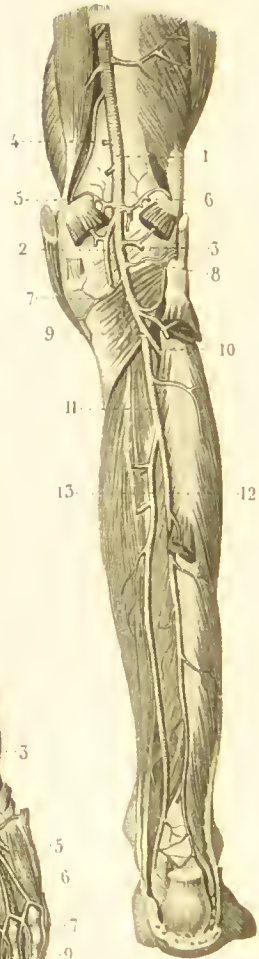
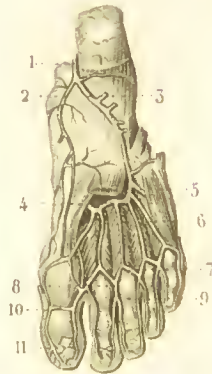


Fig. 3.



## PLATE LXVIII.

### VASCULAR SYSTEM, PLATE XI.

#### *Fig. 1. ARTERIES OF THE THIGH.*

1. Sartorius, cut.—2. Adductor opening in adductor magnus.—3. Superficial femoral.—4. Superficial epigastric.—5. Profunda, or deep femoral.—5', 5', 5', 5'. Perforating branches.—6. Internal circumflex.—7. External circumflex.—8. Descending branch of external circumflex. — 9 and 10. External pudic (superficial and deep).\*—11. Popliteal.

#### *Fig. 2. POPLITEAL AND POSTERIOR TIBIAL ARTERIES.*

1. Popliteal.—2 and 3. Sural.—4 and 5. Superior internal articular.—6. Superior external articular.—7. Inferior internal articular.—8. Inferior external articular.—9. Division of popliteal into, — 10. Anterior tibial, and, — 11. Common trunk, giving off,—12. Peroneal, and,—13. Posterior tibial.

#### *Fig. 3. PLANTAR ARTERIES.*

1. Posterior tibial.—2. Internal plantar.—3. External plantar.—4. Plantar arch.—5. Perforating.—6. Digital.—7. Division of digital branches.—8. Confluence of these two divisions at the web of the toes.—9. Division of the anastomosis.—10. Anastomosis of two digital branches.—11. Ultimate distribution of digital arteries to the extremities of the toes.

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\* Separated by fascia lata.



## PLATE LXIX.

### VASCULAR SYSTEM, PLATE XII.

#### *Fig. 1.* SCAPULAR ARTERIES.

1. Levator anguli scapulæ.—2. Rhomboideus major.—3. Supra-spinatus.—4. Infra-spinatus.—5. Teres major.—6. Outer heads of triceps.—7. Anconeus, cut.—8. Posterior scapular artery.—9. Supra-scapular.—10. Dorsalis scapulæ.—11. Posterior circumflex.—12. Superior profunda.—13. Posterior interosseus.—14. Posterior interosseus recurrent.—15. Muscular branch of posterior interosseus.

*Fig. 2.*—1. Anterior interosseus artery.—2. Radial, passing through the first interosseus space.—3. Cárpal branches.—4. Radialis indicis.—5. Digital branches, communicating superiorly with,—6. The posterior perforating, and inferiorly with,—7. The anterior perforating.

#### *Fig. 3.* ANTERIOR TIBIAL.

1. Branch of the superior external articular of popliteal.—2. Anterior tibial.—3. Anterior tibial recurrent.—4. External malleolar.—5. Internal malleolar.—6. Tarsal.—7. Metatarsal.—8. Digital.

(N.B.—From the annular ligament to its disappearance through the first interosseus space, the anterior tibial is called the dorsalis pedis.)

Fig. 3.

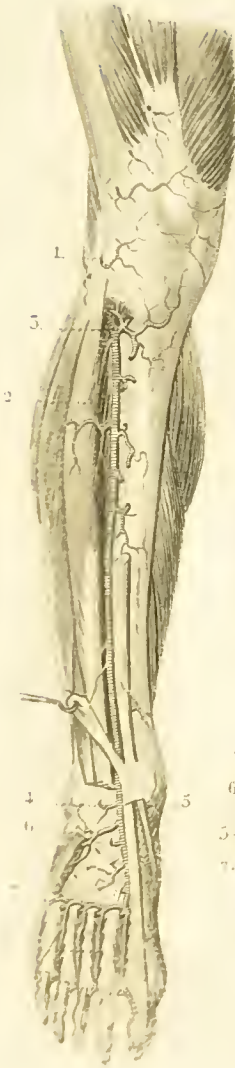


Fig. 1.

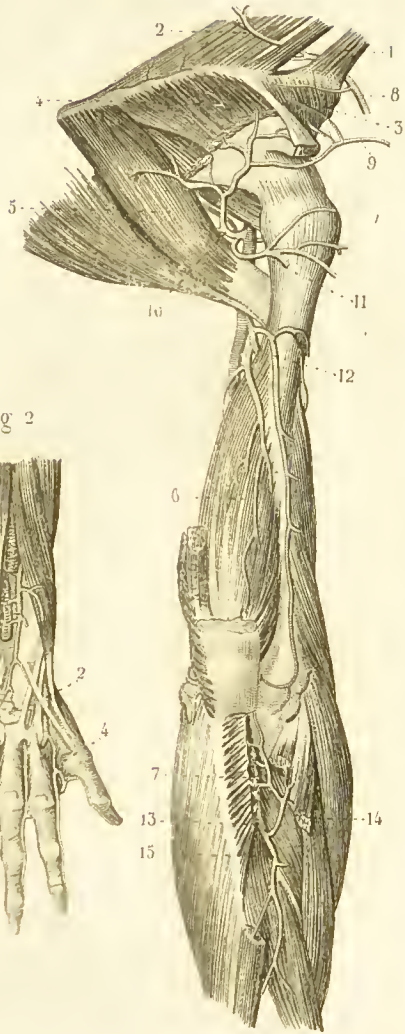
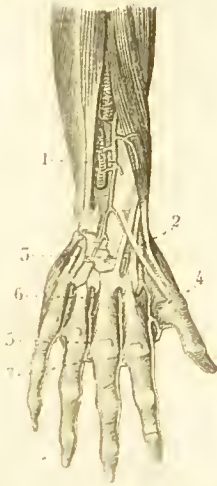
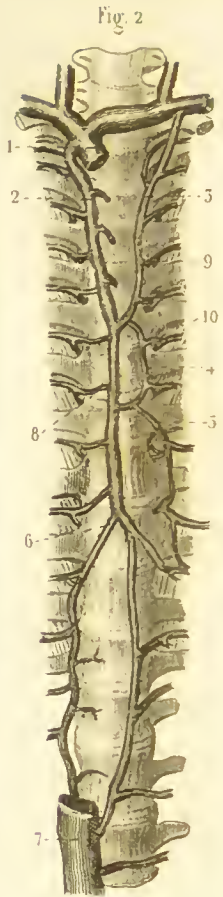
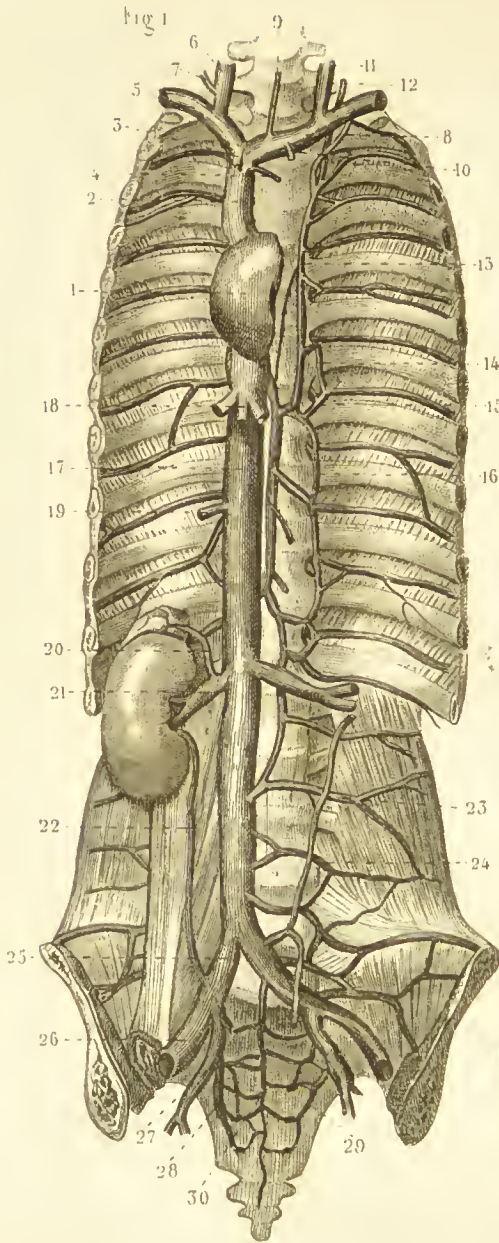


Fig. 2.









## PLATE LXX.

### VASCULAR SYSTEM, PLATE XIII.

#### VEINS.

*Fig. 1.*—1. Right auricle.—2. Superior vena cava.—3. Right internal mammary vein.—4. Mediastinal vein.—5. Right subclavian.—6. Internal jugular.—7. External jugular.—8. Left subclavian.—9. Inferior thyroid.—10. Left internal mammary.—11. Left internal jugular.—12. Left external jugular.—13. Left superior intercostal.—14 and 15. Anastomosing branches, between two intercostal veins.—16. Azygos minor.—17. Inferior cava.—18. Hepatic.—19. Right spermatic.\*—20. Supra-renal.—21. Renal.—22. Communication between a branch of the renal and common iliac veins.—23 and 24. Lumbar vein.—25. Common iliac.—26. External iliac.—27. Internal iliac.—28 and 29. Lateral sacral.—30. Middle sacral.

*Fig. 2.*—1. Superior cava.—2. Azygos major.—3. Left superior intercostal.—4 and 5. Branches taking the place of the lesser azygos.—6. Terminal branches of the azygos minor.—7. Inferior cava.—8, 9, and 10. Intercostal veins, opening, one into the azygos, a second into the left superior intercostal, and a third into the vein taking the place of the azygos minor.

*Fig. 3.* THE UTERINE SINUSES.

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\* On the left side the spermatic vein opens into the renal vein. The right spermatic usually enters the cava lower down than represented in the plate.

PLATE LXXI.

VASCULAR SYSTEM, PLATE XIV.

VEINS.

SUPERFICIAL VEINS OF THE HEAD AND NECK, SUBCLAVIAN AND SUPERIOR CAVA, ETC.

1. Pericardium, opened.—2. Right auricle.—3. Part of the vena cava superior, enclosed in the pericardium.—4. Superior cava, beyond the reflexion of the pericardium.—5. Azygos major.—6. Right internal mammary.—7. Right innominate vein.—8. Internal jugular.—9. Inferior thyroid.\*—10. Common trunk of the supra and posterior scapular veins.—11. Facial.—12. Its anastomosis with the ophthalmic.—13. Frontal (*vena præparata*).—14. Occipital.—15. Superficial temporal.—16. Axillary.—17. Cephalic.

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\* The indicatory line is too long ; it points to the right anterior jugular.









Fig. 1.

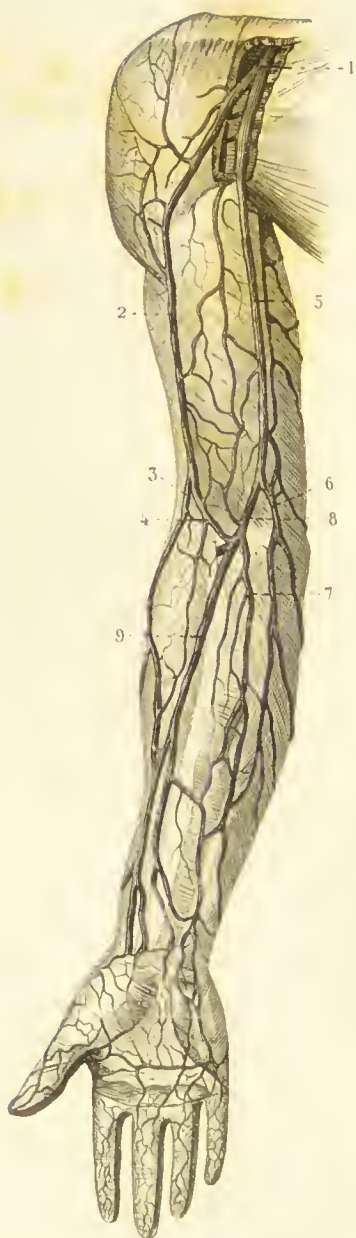


Fig. 3

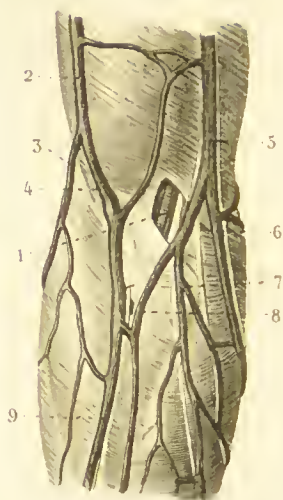


Fig. 2



PLATE LXXII.

VASCULAR SYSTEM, PLATE XV.

VEINS.

*Fig. 1.* SUPERFICIAL VEINS OF THE UPPER EXTREMITY.

1. Axillary.—2. Cephalic.—3. Radial.—4. Median cephalic.—5. Basilic.—6. Posterior ulnar.—7. Anterior ulnar.—8. Median basilic.—9. Median.

*Fig. 2.*—1. Radial.—2. Dorsal vein of thumb.—3. Posterior ulnar.—4. Vena salvatella.

*Fig. 3.* VEINS AT THE END OF THE ELBOW.

1. Opening made in the brachial aponeurosis, showing the brachial artery, its venæ comites, and the median nerve.—2. Cephalic.—3. Radial.—4. Median cephalic.—5. Basilic.—6. Posterior ulnar.—7. Anterior ulnar.—8. Median basilic.—9. Median.

## PLATE LXXIII.

### VASCULAR SYSTEM, PLATE XVI.

#### VEINS.

##### PORTAL VEIN.

1. Liver.—2. Gall bladder, showing its ducts and junction with the hepatic duct.—3. Hepatic artery.—4. Inferior cava.—4, 4. Pancreas, cut so as to show the position of the vena portæ.—5, 5. Duodenum.—6, 6, 6, 6. Convolutions of the small intestine.—7. Cæcum and ascending colon.—8. Descending colon, sigmoid flexure, and commencement of rectum.—9. Spleen.—10. Stomach, turned on one side.—11, 11. Veins of small intestine.—12. Colica dextra vein.—13. Superior mesenteric vein.—14, 14. Splenic veins.—15. Inferior mesenteric.—16. Gastro-epiploica sinistra.—17. Gastro-epiploica dextra, opening into.—18. The trunk of the portal vein.—19. Fissure for the vena portæ.—20. Umbilical vein.—21. Remains of ductus venosus.

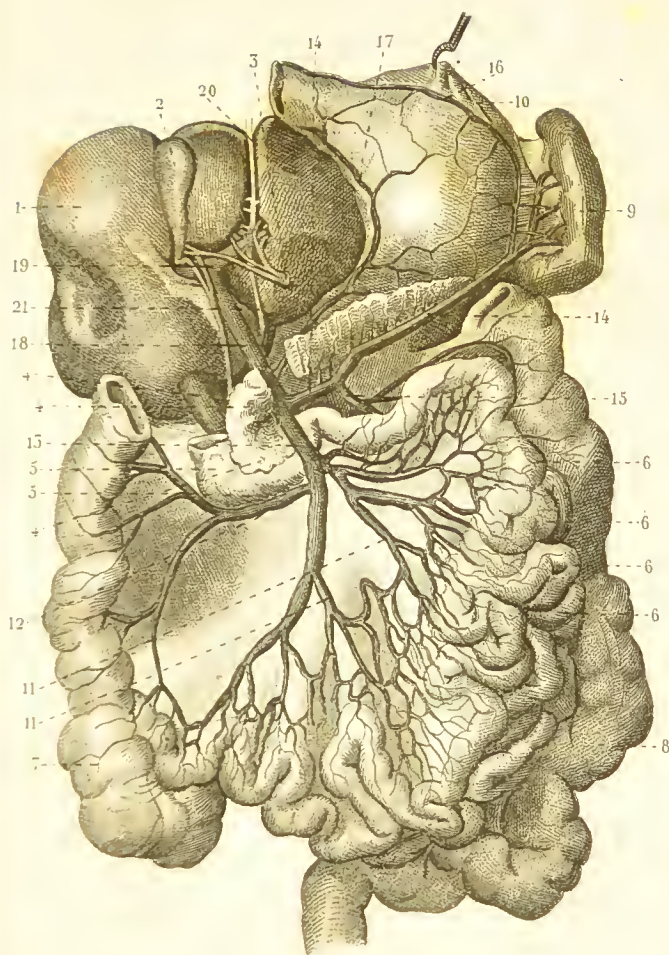








Fig. 1.



Fig. 3.



Fig. 4.



Fig. 2.



PLATE LXXIV.

VASCULAR SYSTEM, PLATE XVII.

VEINS.

*Fig. 1.*—1. Internal saphena.—2. Superficial epigastric.—  
3. Dorsal vein of penis,—4. Accessory saphena.

*Fig. 2.*—1. Internal saphena, at the inner side of the leg.—  
2. Internal saphena, on the dorsum of the foot.

*Fig. 3.*—Commencement of internal saphena, by the dorsal  
venous arch.

*Fig. 4.*—1. External saphena.— 2. Internal saphena.

PLATE LXXV.

VASCULAR SYSTEM, PLATE XVIII.

VEINS.

*Fig. 1.* POSTERIOR AND SUPERFICIAL SPINAL VEINS.

1. Superior costo-transverse ligament.—2. External intercostal muscle.—3. Dorsal veins, anastomosing with those above and below, and with those of the opposite side forming a plexus extending the whole length of the vertebral column.

*Fig. 2.* ANTERIOR AND INTERNAL SPINAL VEINS.

The posterior surfaces of the bodies of the vertebræ are shown, the posterior half of the vertebral canal having been removed.

1, 1, 1, 1, 1, 1. Anterior longitudinal veins.—2, 2, 2, 2, 2, 2. Transverse.—3, 3, 3. External veins, communicating with the veins inside the vertebral canal.

*Fig. 3.* POSTERIOR AND INTERNAL SPINAL VEINS.

The anterior half of the spinal canal has been removed.

1, 1, 1, 1, 1, 1. Posterior longitudinal veins.—2, 2, 2, 2, 2, 2. Transverse.—3, 3, 3. Intercostal veins, communicating with those internal to the spinal canal.

Fig. 3

Fig. 1

Fig. 2

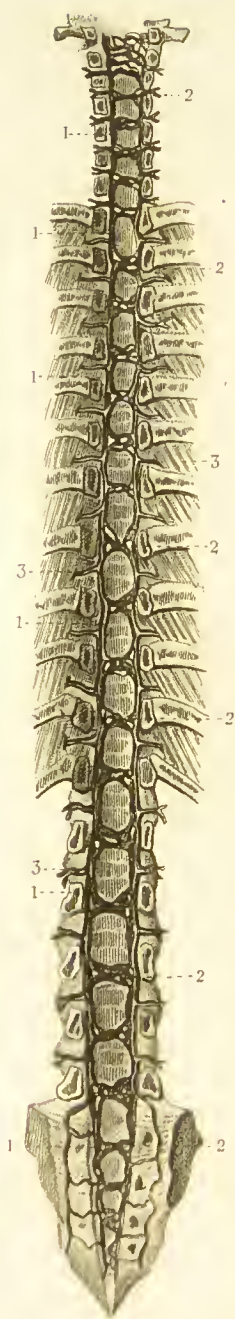
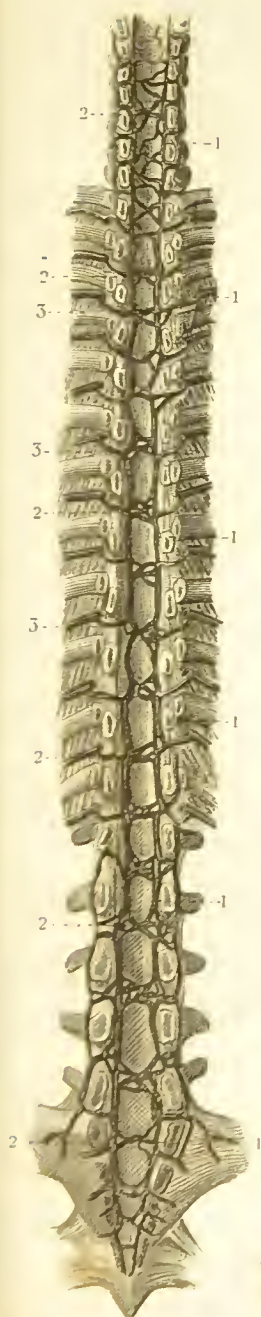








Fig. 1.

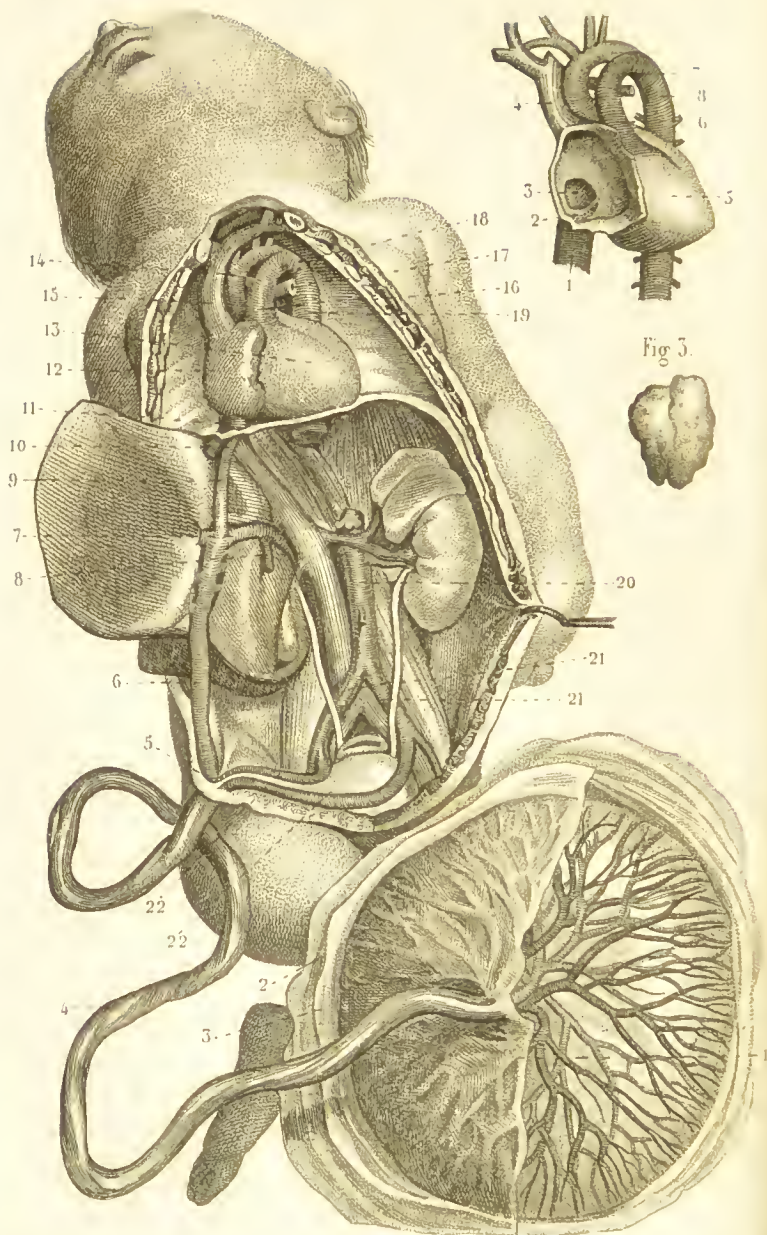


Fig 2

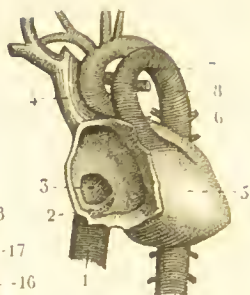


Fig 3.



## PLATE LXXVI.

### VASCULAR SYSTEM, PLATE XIX.

#### *Fig. 1.* FŒTAL CIRCULATION.

1. Foetal surface of the placenta, showing the ramifications of the umbilical artery and vein, covered on one side by the envelopes of the foetus.—2. Chorion.—3. Amnion.—4. Umbilical cord.—5. Divergence of the vessels of the cord at the umbilicus.—6. Umbilical vein.—7. Anastomosis of the umbilical vein with the vena portæ.—8. Vena portæ.—9. Ductus venosus.—10. Anastomosis of the ductus venosus with the inferior cava.—11. Vena cava inferior at its junction with the right auricle.\*—12. Right auricle.—13. Ventricles.—14. Ascending aorta.—15. Superior cava.—16. Pulmonary artery.—17. Branch of pulmonary artery, cut.—18. Ductus arteriosus. 19. Descending aorta.—20. Abdominal aorta.—21, 21. Common iliac arteries.—22, 22. Umbilical arteries, continuous with the internal iliac.

*Fig. 2.* HEART AND GREAT VESSELS.—The right auricle has been opened.

1. Vena cava inferior.—2. Eustachian valve.—3. Foramen ovale (*Foramen of Botal*), forming a communication between the two auricles.—4. Superior cava.—5. Ventricles.—6. Pulmonary artery.—7. Ductus arteriosus.—8. Aorta.

#### *Fig. 3.* THYMUS GLAND.

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\* The inferior cava has no course in the thorax; it enters the right auricle immediately after it has passed through the diaphragm.

PLATE LXXVII.

VASCULAR SYSTEM, PLATE XX.

VEINS.

*Fig. 1.* SINUSES OF THE FALX CEREBRI.

1. Superior longitudinal sinus.—2. Inferior longitudinal sinus.—3. Straight sinus.—4. Venæ Galeni.—5. Torcular Herophili (confluence of the sinuses).

*Fig. 2.* SINUSES OF THE BASE OF THE SKULL.

1. Opening of the superior longitudinal sinus in the torcular Herophili.—2. Horizontal portion of lateral sinus.—3. Oblique portion.—4. Commencement of internal jugular vein at the junction of the inferior petrosal and lateral sinuses.—5. Superior petrosal sinus.—6. Cavernous sinus.—7. Transverse sinus.—8. Circular sinus.

*Fig. 3.* TORCULAR HEROPHILI, OPENED FROM BEHIND.

1. Superior longitudinal sinus.—2. Opening of straight sinus.—3, 3. Orifices of the occipital sinuses.—4, 4. Lateral sinuses.

*Fig. 4.* PARIETAL BONE, FROM WHICH THE OUTER TABLE HAS BEEN REMOVED, SHOWING THE VEINS OF THE DIPLOE.

*Figs. 5 and 6.* VERTICAL SECTION OF THE SUPERIOR AND INFERIOR EXTREMITIES OF THE HUMERUS.

*Fig. 7.* VERTEBRAL SINUSES.—The body of the vertebra is cut horizontally.

1, 1, 1, 1. Longitudinal sinuses, opened.—2. Anterior transverse sinus, opening into which is a sinus of the body of the vertebra.—3. Posterior transverse sinus.—4, 4. Lateral transverse sinuses.—5, 5. Veins external to the vertebra, communicating with the vertebral sinuses.

Fig. 4

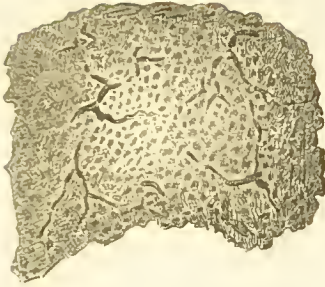


Fig. 5



Fig 1.

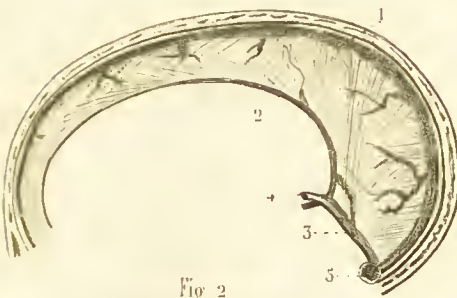


Fig 7.

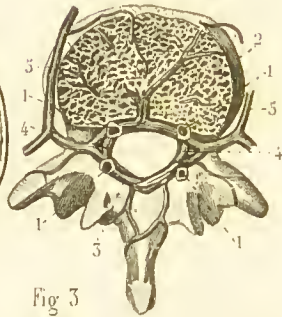


Fig 2

Fig 3

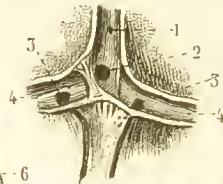
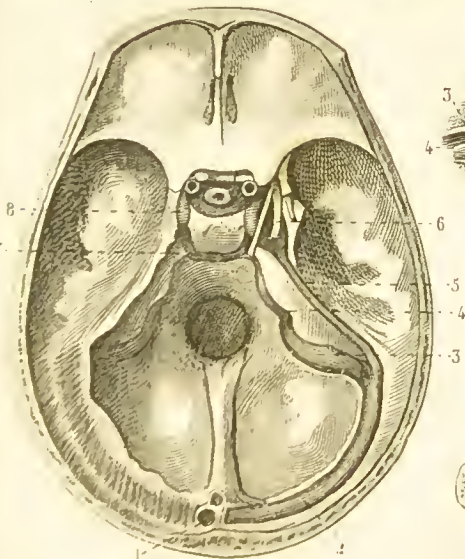
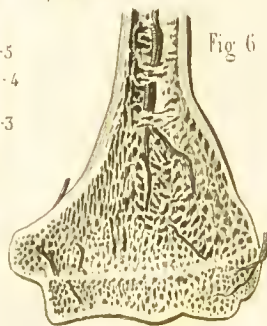


Fig 6



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Fig. 2

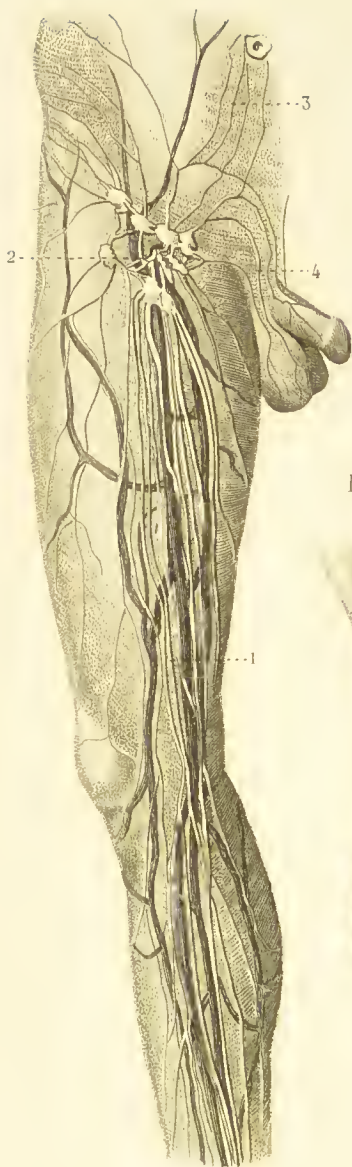


Fig. 4.



F. 3.



Fig. 1.



PLATE LXXVIII.

VASCULAR SYSTEM, PLATE XXI.

LYMPHATICS.

*Fig. 1.* LYMPHATICS OF THE FOOT.

These vessels commence on the dorsum of the foot, and accompany the internal saphena vein.

*Fig. 2.* SUPERFICIAL LYMPHATICS OF THE INFERIOR EXTREMITY, AND THE LOWER HALF OF THE ABDOMINAL PARIETES.

1. Superficial lymphatics, which accompany the internal saphena vein.—2. Inguinal glands.—3. Lymphatics of the lower half of the abdominal parietes.—4. Lymphatics of the scrotum and penis.

*Fig. 2.* SUPERFICIAL LYMPHATICS OF THE BACK OF THE LEG.

The greater number of these accompany the external saphena vein.

*Fig. 4.* SUPERFICIAL LYMPHATICS OF THE UPPER PART OF THE THIGH, BUTTOCKS, AND LOINS.

## PLATE LXXIX.

### VASCULAR SYSTEM, PLATE XXII.

#### LYMPHATICS.

DEEP ANTERIOR LYMPHATIC VESSELS AND GLANDS OF THE LOWER LIMB, ETC.

*Fig. 1.*—1. Anterior tibial vein.—2, 2. Deep lymphatics.—3. Anterior tibial glands.—4. Superficial lymphatics of the thigh.

*Fig. 2.*—1. Femoral vein.—2. Profunda vein.—3. External iliac vein.—4. Internal iliac vein.—5. Inferior cava.—6, 6. Deep lymphatics of the thigh.—7. Deep inguinal glands.—8. External iliac glands and ducts.—2. Internal iliac glands and ducts.—10. Lumbar glands and ducts.

Fig 2



Fig 1.

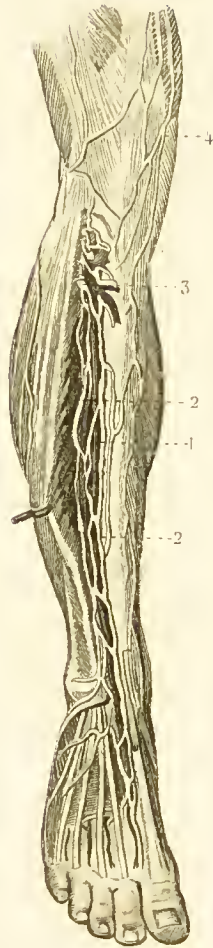






Fig. 2

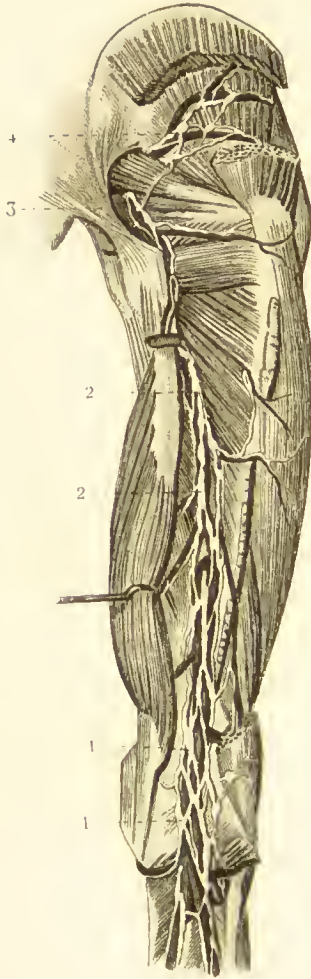


Fig. 1





PLATE LXXX.

VASCULAR SYSTEM, PLATE XXIII.

LYMPHATICS.

DEEP POSTERIOR GLANDS AND DUCTS OF THE LOWER EXTREMITY.

*Fig. 1.*—1. Posterior tibial vein.—2. Peroneal vein.—3. Popliteal vein.—4, 4. Posterior tibial ducts.—5. Peroneal ducts.—6, 6, 6. Popliteal glands and ducts.

*Fig. 2.* THE SUPERFICIAL MUSCLES OF THE BUTTOCK AND BACK OF THIGH ARE RAISED OR TURNED ASIDE.

1, 1. Popliteal glands and ducts.—2, 2. Deep lymphatics.—3. Ischiatic glands and ducts.—4. Gluteal glands and ducts.

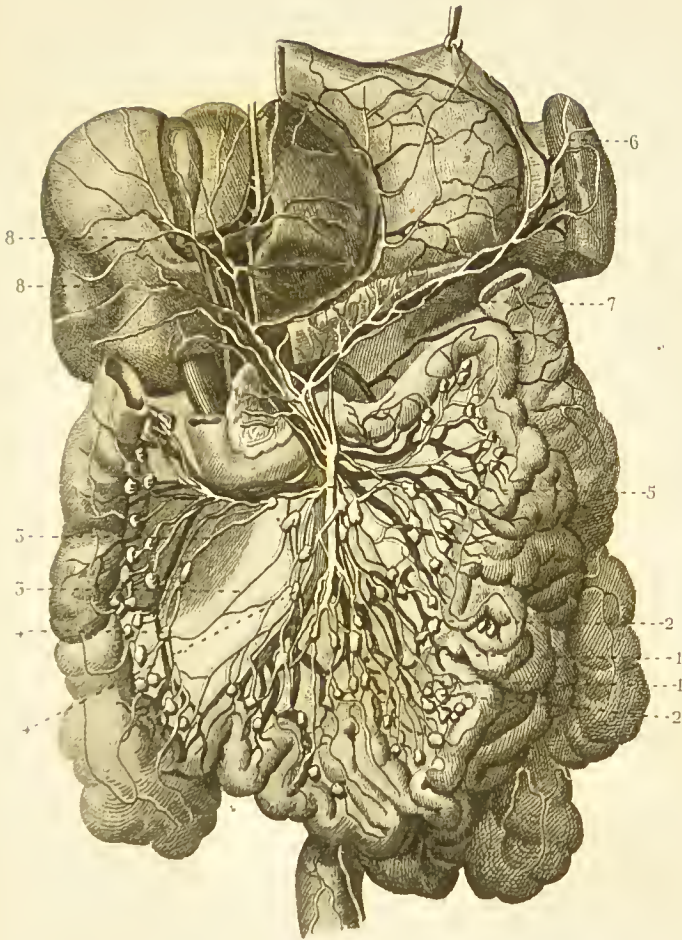
PLATE LXXXI.

VASCULAR SYSTEM, PLATE XXIV.

LYMPHATICS.

GLANDS AND DUCTS OF THE ABDOMINAL VISCERA.

1, 1. Absorbents of the small intestine (lacteals or chyloferous ducts).—2, 2. Mesenteric glands.—3, 3. Lymphatics of large intestine.—4, 4. Mesocolic glands.—5. Common lacteal duct, opening into the thoracic duct.—6. Lymphatics of the spleen.—7. Lymphatics of the pancreas.—8, 8. Lymphatics of the inferior surface of the liver.







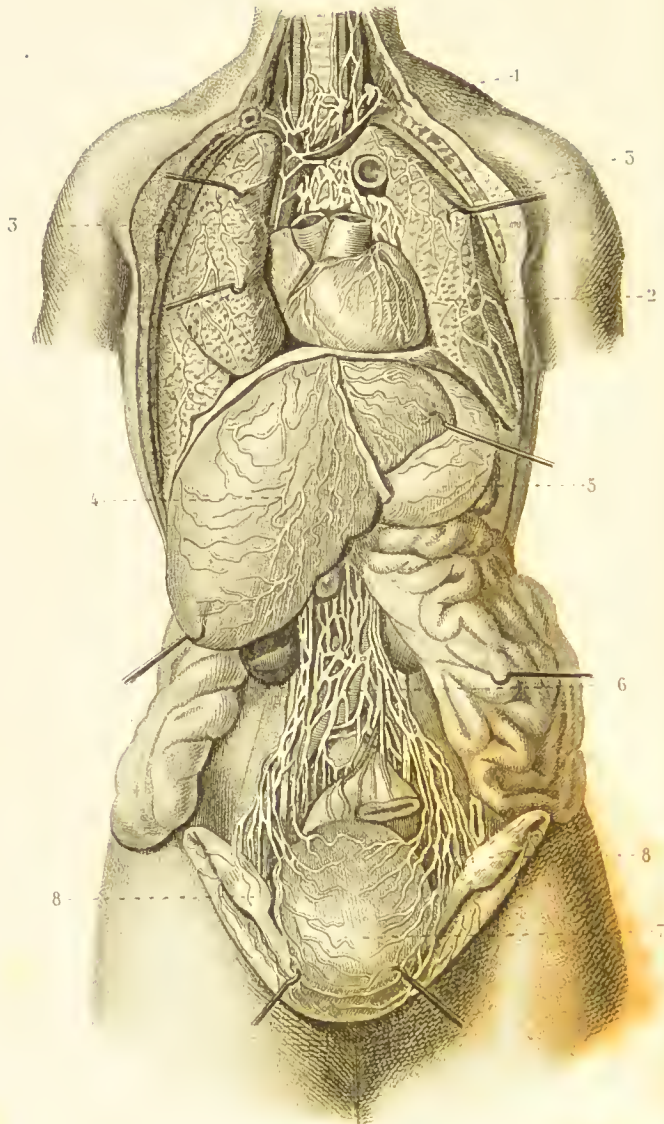


PLATE LXXXII.

VASCULAR SYSTEM, PLATE XXV.

LYMPHATICS.

LYMPHATICS OF THE THORACIC AND ABDOMINAL VISCERA.

1. Glands and ducts of the lower part of the trachea.—
2. Heart, and its lymphatics.—3, 3. Lungs, and its superficial lymphatic vessels.—4. Lymphatics of the superior surface of the liver.—5. Lymphatics of the inferior surface of the stomach.—6. Lumbar glands and ducts.—6. Lymphatics of the uterus.—8, 8. Ovaries, and broad ligaments of the uterus, with their lymphatic vessels.



PLATE LXXXIII.

VASCULAR SYSTEM, PLATE XXVI.

LYMPHATICS.

THORACIC DUCT, ETC.

1. Superior cava. — 2. Azygos vein. — 3. Thoracic duct. —
4. Hypogastric glands and ducts. — 5. External iliac ducts and glands. — 6. Lumbar ducts and glands. — 7. Commencement of thoracic duct, or receptaculum chyli. — 8. Common duct of the chyloferous vessels opening into the thoracic duct. — 9, 9. Inter-costal ducts. — 10, 10. Deep lymphatics of the lungs. — 11. Thoracic duct, opening into the left subclavian vein at its junction with the internal jugular vein. — 12. Right lymphatic trunk, opening into the right subclavian vein.

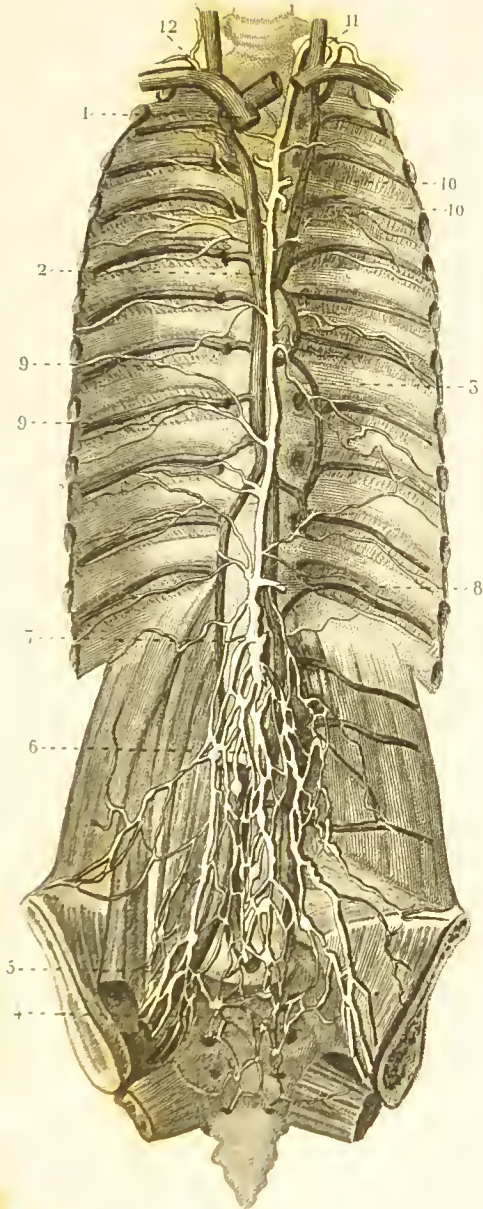






Fig. 1.

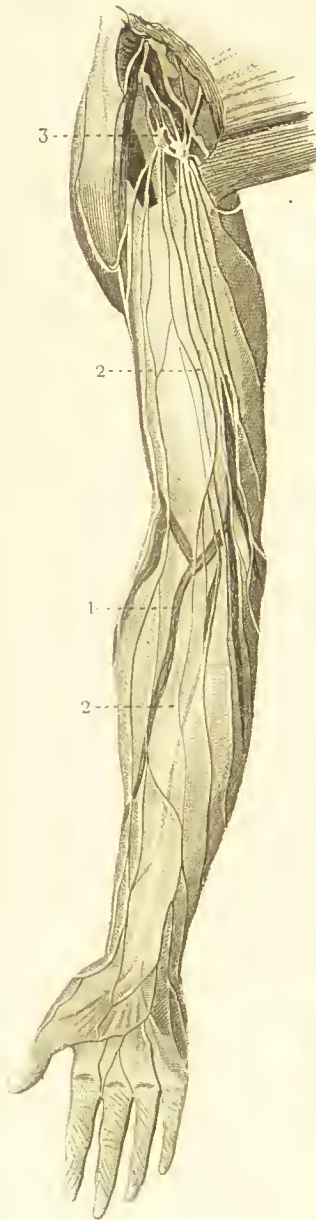


Fig. 2.

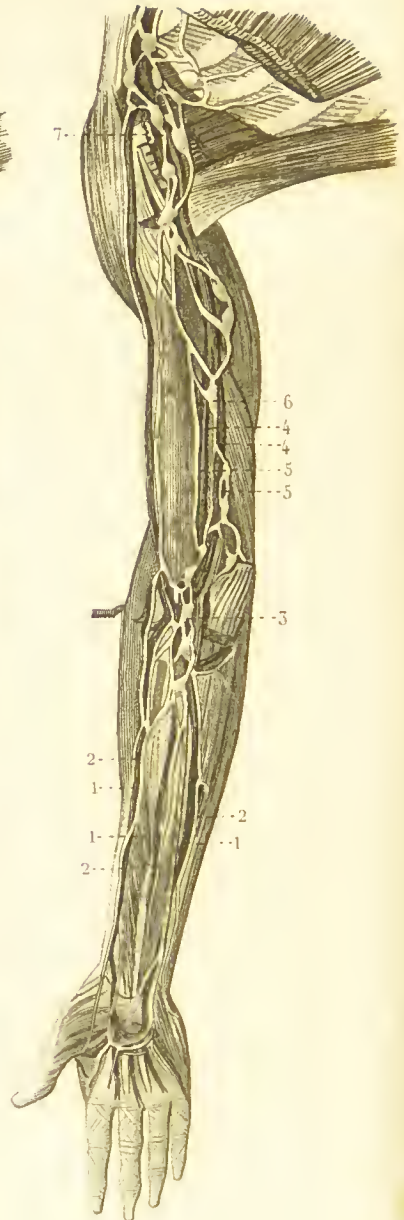


PLATE LXXXIV.

VASCULAR SYSTEM, PLATE XXVII.

LYMPHATICS.

*Fig. 1.* SUPERFICIAL LYMPHATICS OF THE UPPER EXTREMITY.

1. One of the superficial veins of the fore arm.—2, 2. Superficial lymphatics of the fore arm and arm.—3. Axillary glands.

*Fig. 2.* DEEP GLANDS AND DUCTS OF THE UPPER EXTREMITY.

1, 1, 1. Deep veins of the fore arm.—2, 2, 2. Lymphatics accompanying these veins.—3. Lymphatic glands at the bend of the elbow.—4, 4. Brachial veins.—5, 5. Lymphatics accompanying them.—6. Gland situated in the course of the brachial vessels.—7. Axillary glands.

PLATE LXXXV.

VASCULAR SYSTEM, PLATE XXVIII.

LYMPHATICS.

GLANDS AND DUCTS OF THE AXILLA, AND OF THE HEAD AND NECK.

1. Common carotid artery.—2. Internal jugular vein.—3. External jugular vein.—4. Axillary artery.—5. Axillary vein.—6. Lymphatics of the walls of the chest.—7, 7. Axillary glands and ducts.—8, 8, 8. Superficial lymphatics of the cranium.—9, 9. Superficial lymphatics of the face.—10. Parotid gland.—11. Submaxillary glands.—12, 12. *Glandulæ concatenatæ*.



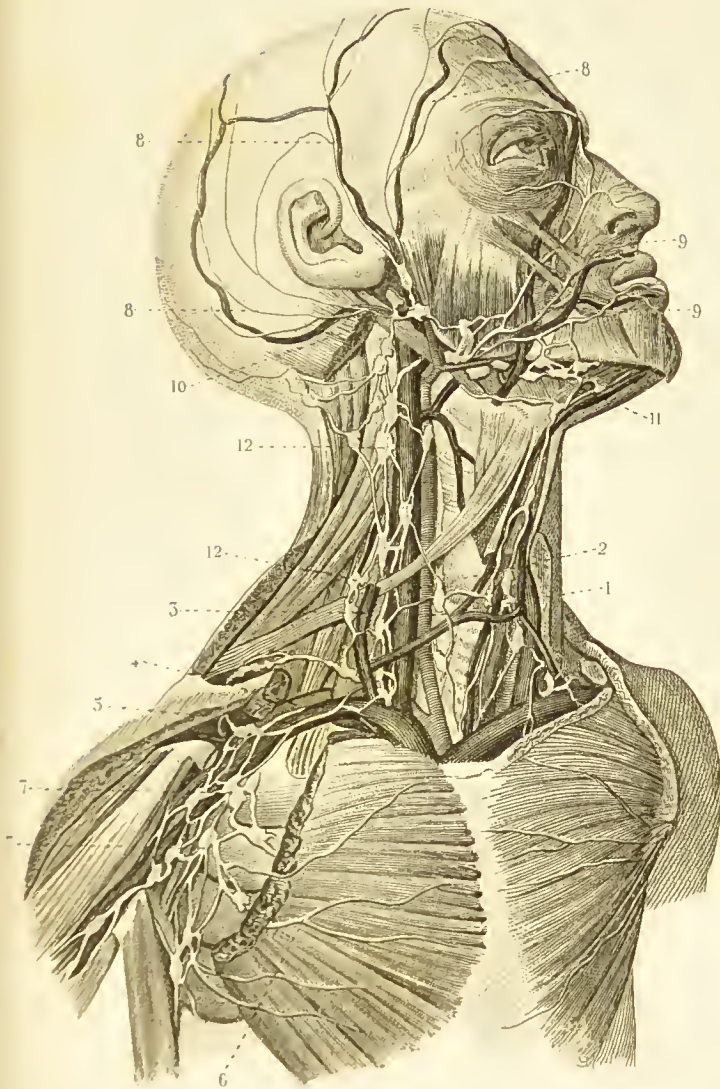






Fig 1.

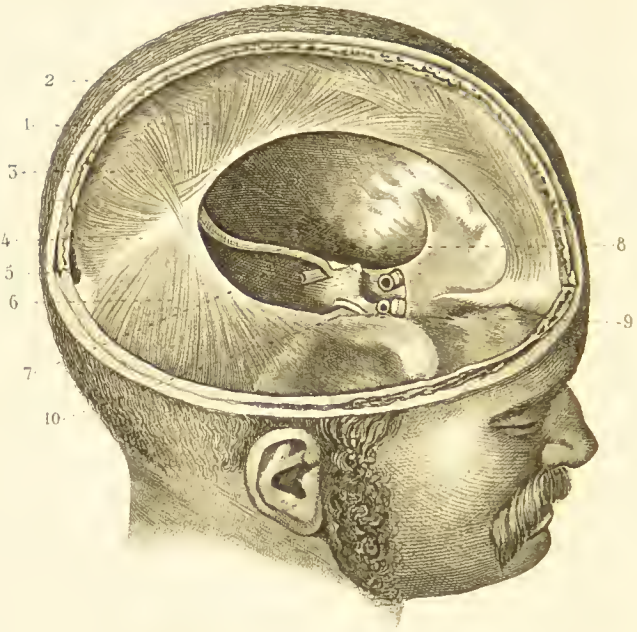


Fig 2.

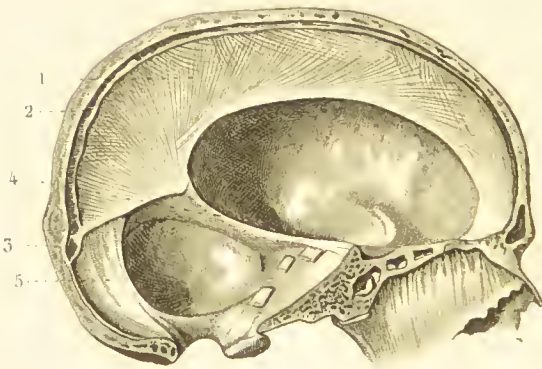


PLATE LXXXVI.

NERVOUS SYSTEM, PLATE I.

*Fig. 1.* DURA MATER.—The cranium is opened on the right side by a vertical and a horizontal cut.

1. Falx cerebri.—2. Superior longitudinal sinus.—3. Inferior longitudinal sinus.—4. Straight sinus.—5. Confluence of the sinuses, or torcular Herophili.—6. Tentorium cerebelli.—7 and 8. Lesser circumference of tentorium.—9. Termination of this circumference at the anterior clinoid process.—10. Termination of greater circumference at the posterior clinoid process.

*Fig. 2.* DURA MATER.—The right portion of the tentorium is removed.

1. Falx cerebri.—2. Superior longitudinal sinus, opened.—3. Torcular Herophili.—4. Left side of tentorium.—5. Falx cerebelli.

PLATE LXXXVII.

NERVOUS SYSTEM, PLATE II.

*Fig. 1. CEREBRUM (upper surface).*

1. Longitudinal fissure.—2. Right hemisphere.—3 and 4. Convolutions.—5 and 6. Sulci.

*Fig. 2. CEREBRUM, PONS VAROLII, CEREBELLUM, AND MEDULLA OBLONGATA (lower surface).*

1. Longitudinal fissure.—2. Anterior lobe.—3. Fissure of Sylvius.—4. Middle lobe.—5. Optic commissure.—6. Pituitary body and tuber cinereum.—7. Corpora mammillaria.—8. Crus cerebri.—9. Pons Varolii.—10. Cerebellum.—11. Superior lobes of cerebellum.—12. Pneumo-gastric lobe.—13. Inferior vermicular process.—14. Anterior pyramid.—15. Olivary body.—16. Restiform body.—17. Olfactory nerve.—18. Optic nerve.—19. Third, or motor oculi.—20. Fourth, or patheticus.—21. Fifth, or trigeminal.—22. Sixth nerve, or abducens.—23. Seventh, or auditory and facial (portio mollis and portio dura).—23' and 24. Eighth nerve (glosso-pharyngeal, pneumo-gastric, and spinal accessory).—25. Ninth, or hypoglossal, motor nerve of tongue.

Fig 1.

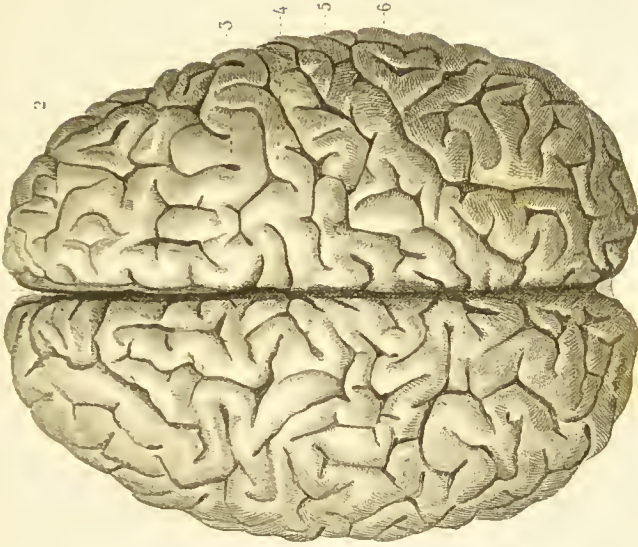
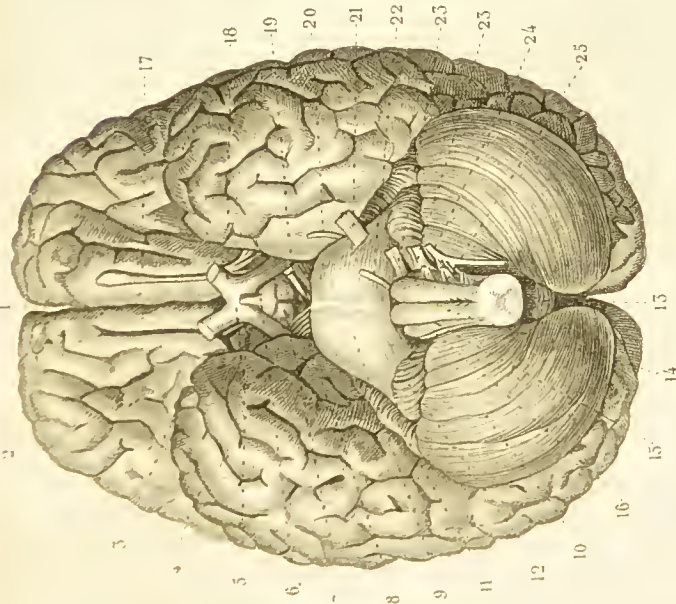


Fig 2.









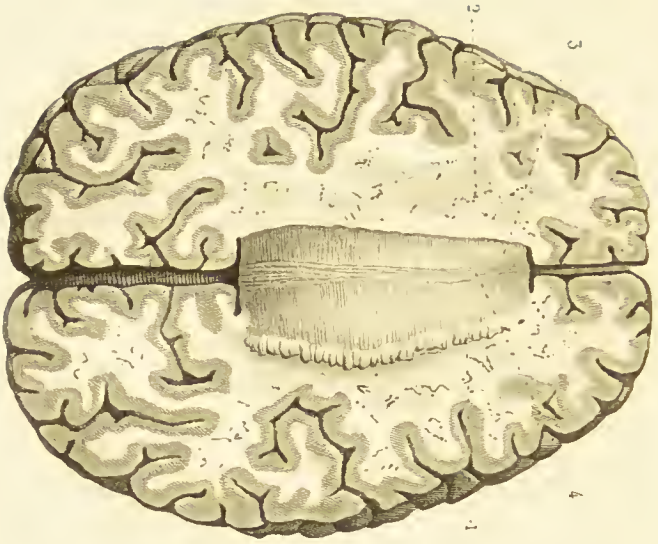


Fig 1.

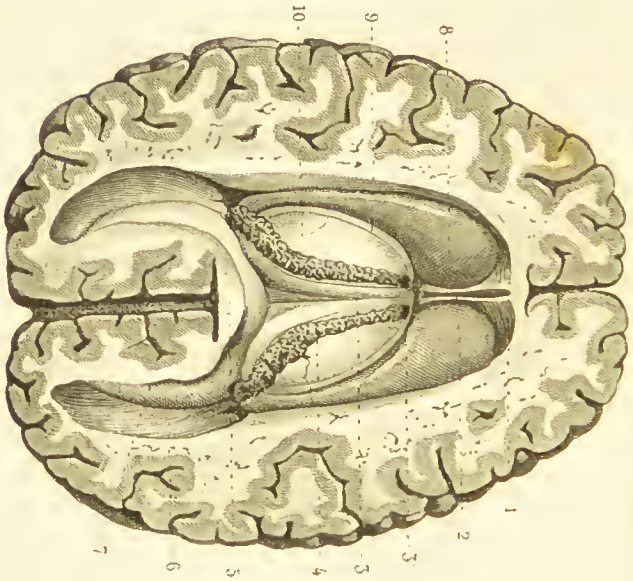


Fig 2

PLATE LXXXVIII.

NERVOUS SYSTEM, PLATE III.

*Fig. 1. CORPUS CALLOSUM.*

The cerebrum has been cut horizontally to the level of the corpus callosum on the left side, and a little below it on the right.

1. The white matter separated from the corpus callosum and turned aside.—2. Centrum ovale of Vieussens, formed by the superior surface of the corpus callosum, and by the masses of white matter in the hemispheres.—3. Corpus callosum.—4. Raphé and nerves of Lancisi.

*Fig. 2. FORNIX, ETC.*

1. Reflected portion of corpus callosum.—2. Laminæ, forming the septum lucidum and fifth ventricle, cut.—3. Fornix.—3'. Foramen of Munro, through which the choroid plexus of the lateral ventricles are continuous with that of the middle.—4. Choroid plexus.—5. Posterior extremity of corpus callosum.—6. Posterior cornu.—7. Hippocampus minor.—8. Corpus striatum.—9. Tænia semicircularis.—10. Optic thalamus.

## PLATE LXXXIX.

### NERVOUS SYSTEM, PLATE IV.

*Fig. 1.* THIRD AND FOURTH VENTRICLES.—SUPERIOR PART OF LATERAL VENTRICLES.—UPPER SURFACE OF CEREBELLUM.

1. The two laminæ of the septum lucidum enclosing the fifth ventricle.—2. Anterior pillars of fornix, cut and turned back.—3. Anterior commissure.—4. Middle commissure.—5. Third ventricle.—6. Posterior commissure.—7. Pineal gland and its peduncles.—8. Tubercula quadrigemina, or *nates and testes*.—9. Corpus striatum.—10 and 11. Tænia semicircularis (the anterior rounded part is called the *horny band* of Tarini).—12. Optic thalamus.—13. Superior surface of cerebellum.—14. Superior vermiform process.

*Fig. 2.* VERTICAL SECTION OF THE BRAIN IN THE MESIAL LINE.

1. Corpus callosum.—2. Peduncle of corpus callosum.—3. Gyrus fornicatus.—4. Septum lucidum.—5. Anterior commissure.—6. Fornix.—7. Foramen of Munro.—8. Optic commissure.—9. Optic thalamus.—10. Pineal gland.—11. Nates and testes.—12. Fissure separating the posterior from the middle lobe.—13. Valve of Vieussens.—14. Linguetta laminosa.—15. Arbor vitæ.—16. Fourth ventricle.—17. Divergence of posterior pyramid.—18. Posterior pillar of spinal cord.—19. Antero-posterior fibres of the anterior pyramids.—20. Pons.—21. Crus cerebri.—22. Aqueduct of Sylvius (*Iter a tertio ad quartum ventriculum*).—23. Corpus mammillare.—24. Tubercinerum.—25. Pituitary body.—26. Optic commissure.—27. Lamina closing in the middle or third ventricle in front.

Fig. 2.

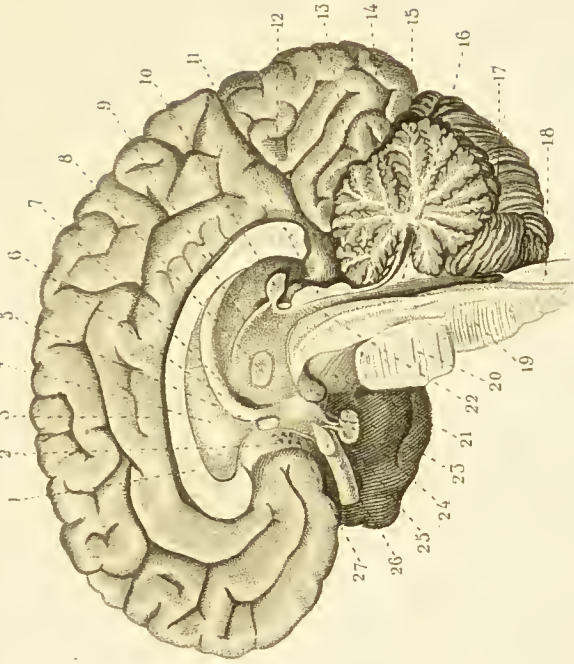


Fig. 1

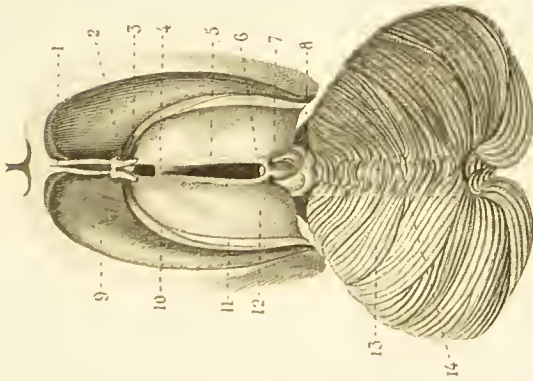








Fig. 1

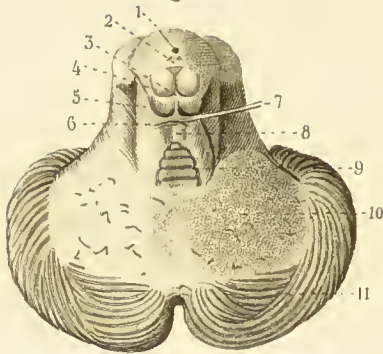


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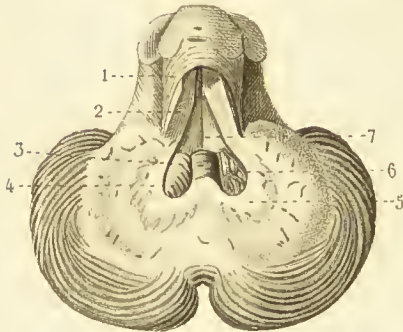


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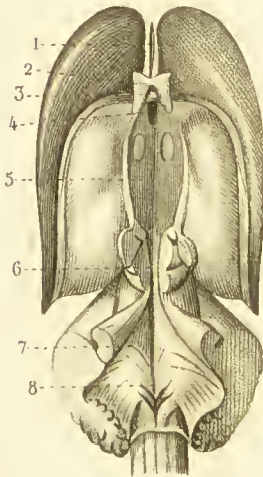


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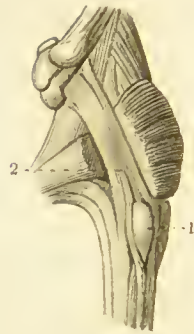


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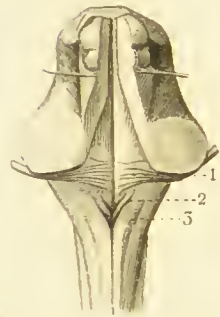
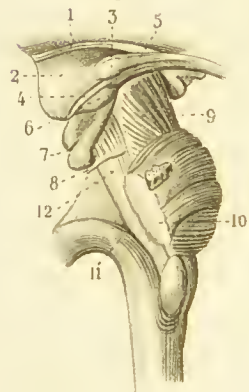


Fig 5



## PLATE XC.

### NERVOUS SYSTEM, PLATE V.

*Fig. 1. CEREBELLUM.*—The anterior lobes are taken away.

1. Foramen between the third and fourth ventricles (*Iter a tertio ad quartum ventriculum*).—2. Posterior commissure.—3. Corpora quadrigemina (*nates and testes*).—4. Process of the testes to the optic thalamus.—5. Processus cerebelli ad testes.—6. Commissure of the valve of Vieussens.—7. Fourth nerve.—8. Valve of Vieussens.—9. Linguetta laminosa.—10. White central substance of cerebellum.—11. Posterior lobe.

*Fig. 2. CEREBELLUM.*—The fourth ventricle is opened by removing a portion of the central white substance of the cerebellum and the upper part of the valve of Vieussens.

1. Processus e cerebello ad testes. The fibres of these two processes are seen reuniting under the corpora quadrigemina.—2. Valve of Vieussens divided, showing the two laminae.—3. Free extremity of the inferior vermiform process in the fourth ventricle (*nodulus*).—4. Lobe of the medulla oblongata.—5. Corpus dentatum.—6. Choroid plexus of fourth ventricle.—7. Interior of fourth ventricle.

*Fig. 3. THE VENTRICLES OF THE BRAIN.*

1. Fifth ventricle.—2. Anterior pillars of fornix; the cleft between them is called the valvule.—3. Anterior commissure.—4. Infundibulum.—5. Third ventricle.—6. Aqueduct of Sylvius.—7. Fourth ventricle.—8. Calamus scriptorius.

*Fig. 4. FLOOR OF FOURTH VENTRICLE.*

1. Roots of auditory nerve.—2. Processus clavatus.—3. Posterior pyramids.

*Fig. 5. POSTERIOR PART OF THE OPTIC THALAMUS AND MESO-CEPHALON, SEEN FROM THE SIDE.*

1. Tænia semicircularis.—2. Optic thalamus.—3. External geniculate body.—4. Process of white substance passing from the optic thalamus.—5. Internal geniculate body.—6. Tubercle situated near the geniculate bodies.—7. Tubercula quadrigemina.—8. Fourth nerve.—9. Crus cerebri.—10. Crus cerebelli, cut.—11. Restiform body.—12. Lateral fasciculi of isthmus.

*Fig. 6. THE FIBRES OF THE PONS ARE CUT IN ORDER TO SHOW THE CONTINUITY OF THE LATERAL FASCICULUS OF THE ISTHMUS WITH THE SPINAL CORD.*

1. Olivary body.—2. Lateral fasciculus of isthmus.

## PLATE XCI.

### NERVOUS SYSTEM, PLATE VI.

*Fig. 1.* TRANSVERSE SECTION OF THE BRAIN IN FRONT OF THE ANTERIOR COMMISSURE.—The anterior lobes are removed.

1. Optic commissure.—2. Lamina which shuts in the third ventricle in front.—3. Anterior commissure, perforating the corpus striatum.—4. Anterior part of fornix.—5. Remains of septum lucidum.—6. Corpus callosum.—7. Ventricle of corpus callosum.—8. Choroid plexus.—9 and 10, Superior and inferior portions of the corpus striatum, separated by the prolongation of the crura cerebri.—11. Continuation of this prolongation with the white substance of the lateral hemisphere.—12. Fissure of Sylvius.

*Fig. 2.* TRANSVERSE SECTION OF THE BRAIN THROUGH THE OPTIC THALAMI.—The posterior part of the brain is removed.

1. Pituitary body.—2. Pedicle of pituitary body.—3. Corpora mammillaria.—4. Third ventricle.—5. Optic commissure.—6. Fifth ventricle.—7. Corpus callosum.—8. Lateral portion of roof of fornix.—9. Choroid plexus.—10. Optic thalamus.—11 and 12. Superior and inferior portions of the corpus striatum.—13. Section of the crus cerebri and of the optic nerve.—14. Group, composed of the hippocampus major and tænia hippocampi.

*Fig. 3.* TRANSVERSE SECTION OF BRAIN IN FRONT OF THE ANTERIOR COMMISSURE.—The posterior part of the brain is removed.

1. Under surface of corpus callosum.—2. Fifth ventricle.—3. Corpus callosum.—4. Continuity of the corpus callosum with that prolongation of the crura cerebri which divides the grey substance of the corpus striatum.—5. White substance of the hemisphere.

*Fig. 4.* VERTICAL SECTION OF THE RIGHT LOBE OF THE CEREBELLUM, TO SHOW THE ARBOR VITÆ.

1. White substance of arbor vitæ.—2. Corpus dentatum.—3, 3, 3. Ramifications of the arbor vitæ.

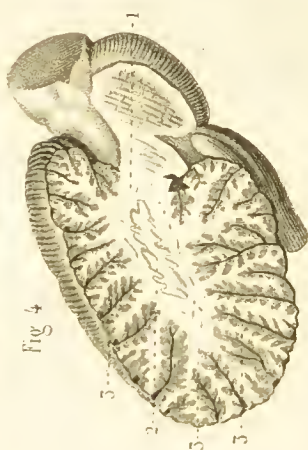
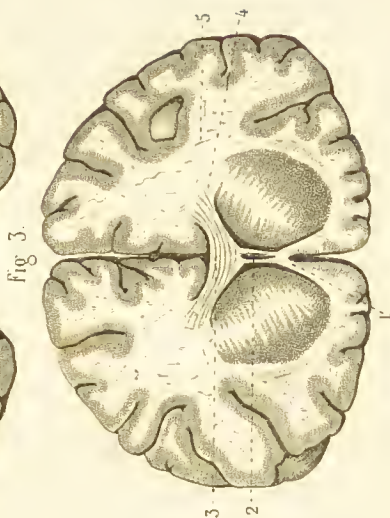
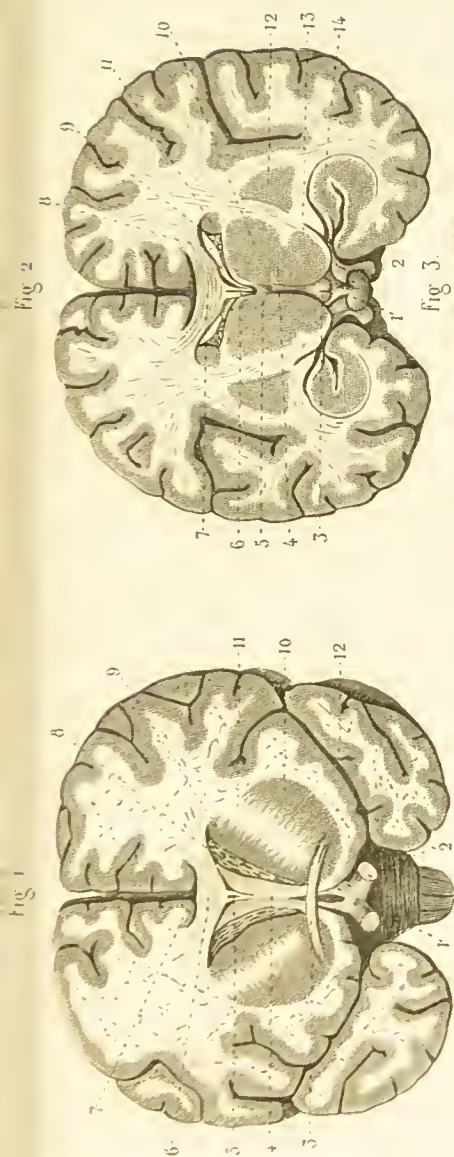








Fig. 3.

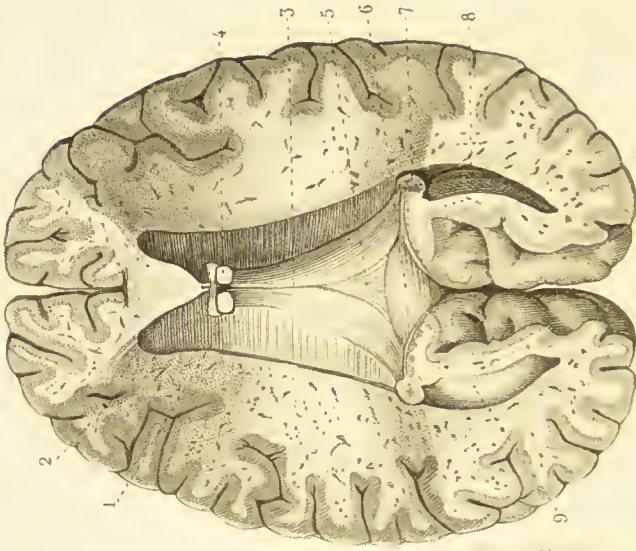


Fig. 2.

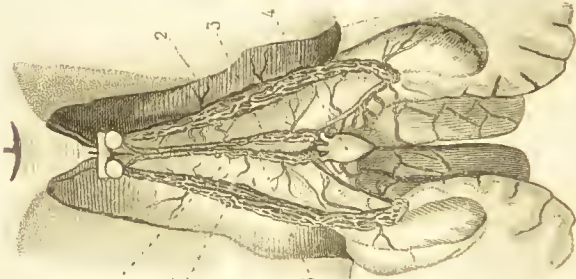
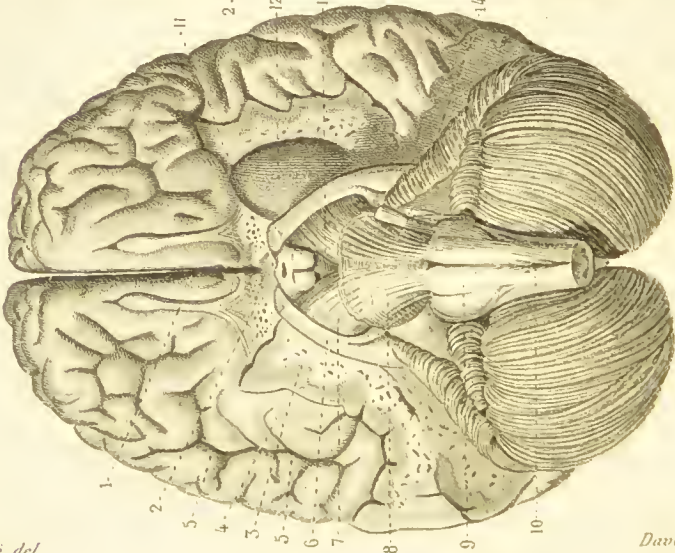


Fig. 1.



## PLATE XCII.

### NERVOUS SYSTEM, PLATE VII.

*Fig. 1.* BASE OF BRAIN.—The middle lobes have been removed.

1. Olfactory nerve.—2. Anterior perforated space.—3. White matter of hemisphere, adjacent to the inferior part of the corpus striatum.—4. Group of convolutions corresponding to the inferior part of the corpus striatum.—5, 5. Convolutions in which they terminate.—6. Optic tract.—7. Crus cerebri.—8. Fibres crossing the pons, and continuous with the crus.—9. Anterior pyramid.—10. Decussation of portion of the anterior pyramids.—11. Tuber cinereum.—12. Inferior portion of corpus striatum.—13. Posterior perforated space.—14. Origin of fifth nerve.

*Fig. 2.* VELUM INTERPOSITUM AND CHOROID PLEXUS.

1. Velum interpositum.—2, 2. Choroid plexus of lateral ventricles.—3, 3. Choroid plexus of the inferior surface of the velum.—4. Pineal body.

*Fig. 3.* CORPUS CALLOSUM.—FORNIX.

1. Corpus callosum.—2. Anterior commissure.—3. Fornix.—4. Anterior pillar of fornix.—5. Lyra.—6. Posterior extremity of corpus callosum.—7. Hippocampus major, cut.—8. Digital cavity.—9. Hippocampus minor.

## PLATE XCIII.

### NERVOUS SYSTEM, PLATE VIII.

*Fig. 1.* THE INTERNAL PART OF THE OPTIC THALAMUS IS SCRAPED AWAY AND REMOVED.

1. Fibres of the medulla spreading out in the optic thalamus.—2. Crus cerebri.—3. Continuation of anterior pillar of fornix into the optic thalamus.—4. Anterior pillar of fornix.—5. Anterior commissure.—6. Corpus callosum.—7. Septum ludicum, cut.—8. Corpus striatum.—9. Tænia semicircularis.—10. Superior portion of optic thalamus.—11. Pineal body and its crura.—12. Tubercula quadrigemina.—13. Valve of Vieussens.—14. Fourth ventricle.

*Fig. 2.* LATERAL VENTRICLE.

1. Roof of ventricle.—2. Digital cavity.—3. Hippocampus minor.—4. Descending cornu.—5. Hippocampus major.—6. Choroid plexus.—7. Corpus fimbriatum.

*Fig. 3.* INFERIOR SURFACE OF CEREBELLUM.

1. Superior vermiform process.—2. Inferior vermiform process.—3. Amygdala.—4. Pneumogastric lobe.—5, 5. Slender and digastric lobes.—6, 6. Inferior lobes.

*Fig. 4.* THE MEDULLA IS PULLED UP AND DRAWN FORWARDS.

1, 1. Auditory nerves.—2, 2. Vagi.—3. Inferior vermiform process.—4, 4. Valves of Tarini.

Fig 3.

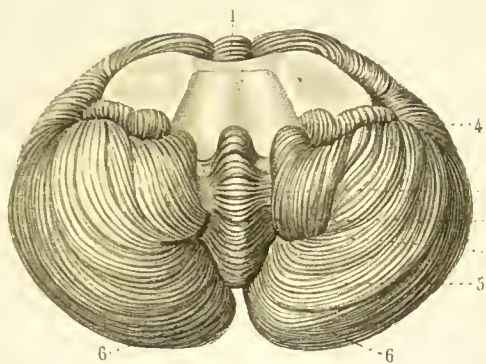


Fig 2.



Fig 4.

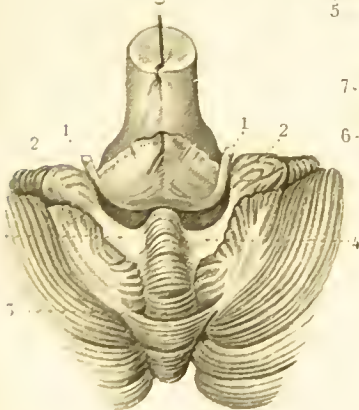


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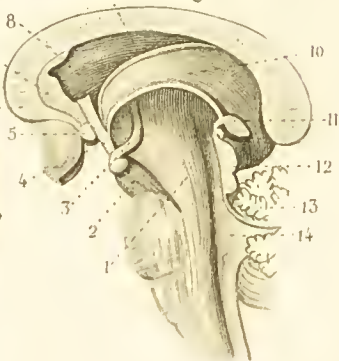






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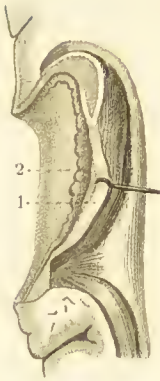


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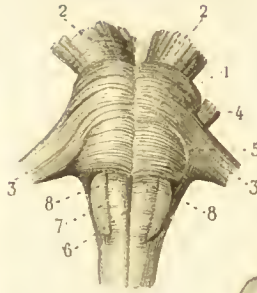


Fig. 5.



Fig. 2.

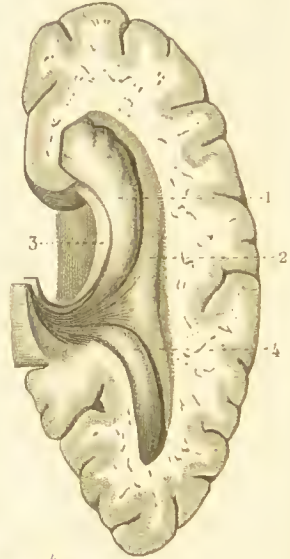


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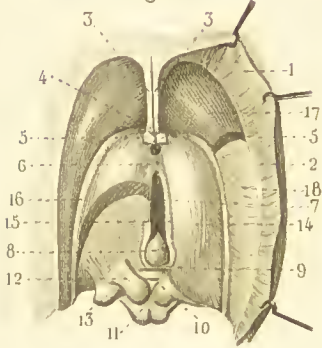


Fig. 6.





## PLATE XCIV.

### NERVOUS SYSTEM, PLATE IX.

*Fig. 1.*—1. Corpus callosum, turned aside.—2. White line situated at the meeting of the corpus callosum with the radiating fibres of the crura cerebri external to the corpus striatum.—3. Laminae of the septum lucidum, enclosing the fifth ventricle.—4. Anterior commissure.—5, 5. Anterior pillars of fornix, cut.—6. Optic commissure.—7. Third ventricle.—8. Pineal body, turned forward to show.—9. Its commissure.—10. Posterior commissure.—11. Tubercula quadrigemina (*nates and testes*).—12. Process from the nates sinking into the white substance of the optic thalamus. The superficial part of the optic thalamus has been removed.—13. Tubercle, from which arise the underlying fibres of the process above named.—14. White substance of the optic thalamus.—15. Anterior pedicle of pineal body.—16. Tænia semicircularis.—17. Corpus striatum. The superior part has been removed.—18. White striæ of the crus cerebri, passing through the corpus striatum.

*Fig. 2.* MIDDLE AND POSTERIOR CORNUA OF THE RIGHT LATERAL VENTRICLES.

1. Hippocampus major.—2. Eminencia collateralis.—3. Tænia hippocampi.—4. Hippocampus minor and posterior cornu.

*Fig. 3.*—1. Tænia hippocampi drawn aside.—2. Fascia dentata.

*Fig. 4.* MESOCEPHALON AND MEDULLA.

1. Pons.—2, 2. Crura cerebri.—3, 3. Crura cerebelli.—4. Fifth nerve.—5. Deviating fibres of the pons.—6. Anterior pyramid.—7. Olivary body.—8, 8. Arciform fibres.

*Fig. 5.* PONS, FROM WHICH THE SUPERFICIAL FIBRES HAVE BEEN REMOVED.—The deep white fibres are seen interspersed with the grey matter, forming a sort of median raphé.

*Fig. 6.*—1. Crus cerebri cut, passing under the optic thalamus.—2. Inferior portion of optic thalamus, continuous with,—3. The optic nerve.—4, 4, 4. Radiating fibres of Reil. The superior portion of the corpus striatum is removed.

## PLATE XCV.

### NERVOUS SYSTEM, PLATE X.

*Fig. 1.* ANTERIOR SURFACE OF THE PONS AND SPINAL CORD, DURA MATER, LIGAMENTUM DENTICULATUM, ETC.

1. Dura mater.—2. Ligamentum denticulatum.—3, 3, 3. Its serrations.—4. Spinal nerves.—5. Ninth nerve.—6. Eighth nerve.—7. Seventh nerve.—8. Fifth nerve.—9. Sixth nerve.—10. Third nerve.—11. Cauda equina.—12. Intumescentia lumbalis.—13. Intumescentia cervicalis.—14. Medulla.—15. Anterior median fissure.—16. Anterior lateral fissure.—17. Olivary body.—18. Anterior pyramid.—19. Pons.—20. Crura cerebri.

*Fig. 2.* SPINAL CORD (*larger*).

1. Dura mater.—3. Ligamentum denticulatum.—3. Anterior root of a spinal nerve, cut.—4. Anterior root.—5. Posterior root and its ganglion.—6. Anterior median fissure.—7. Anterior lateral fissure.

*Fig. 3.* POSTERIOR SURFACE OF SPINAL CORD.

1. Posterior fissure.—2. Calamus scriptorius.—3. Posterior column.—4. Posterior lateral fissure.—5, 5. Divergence of posterior columns.—6. Restiform body.

*Fig. 4.* STRUCTURE OF THE MEDULLA OBLONGATA.

1. Anterior column of the spinal cord divided into two portions which enclose the olive and reunite beyond it.—2. Lateral column divided into two portions, one of which passes behind the olive, and the other behind the anterior pyramid to decussate with its fellow on the opposite side.—3. The decussation.—4. Fibres posterior to the olive, coursing from the anterior and lateral columns.—5, 5. Anterior pyramids, formed by the decussating fibres and some fibres from the anterior pillars.—6, 6. Bands formed by the union of the anterior lateral columns of the cord, continuous with,—7, 7. The crura cerebri.

*Fig. 5.* SECTION OF OLIVARY BODIES.

1. White substance.—2. Corpus dentatum.—3. Nucleus.

*Fig. 6.* SECTION OF PONS AND MEDULLA.

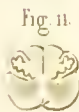
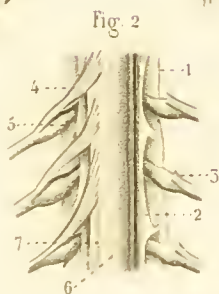
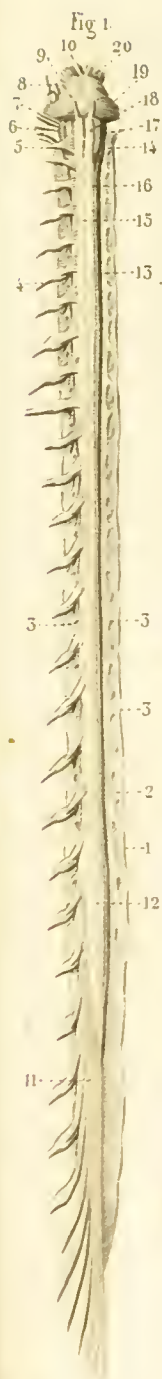
1. Longitudinal fibres of the pons.—2. White matter apparently passing from the olive.—3. Locus niger.

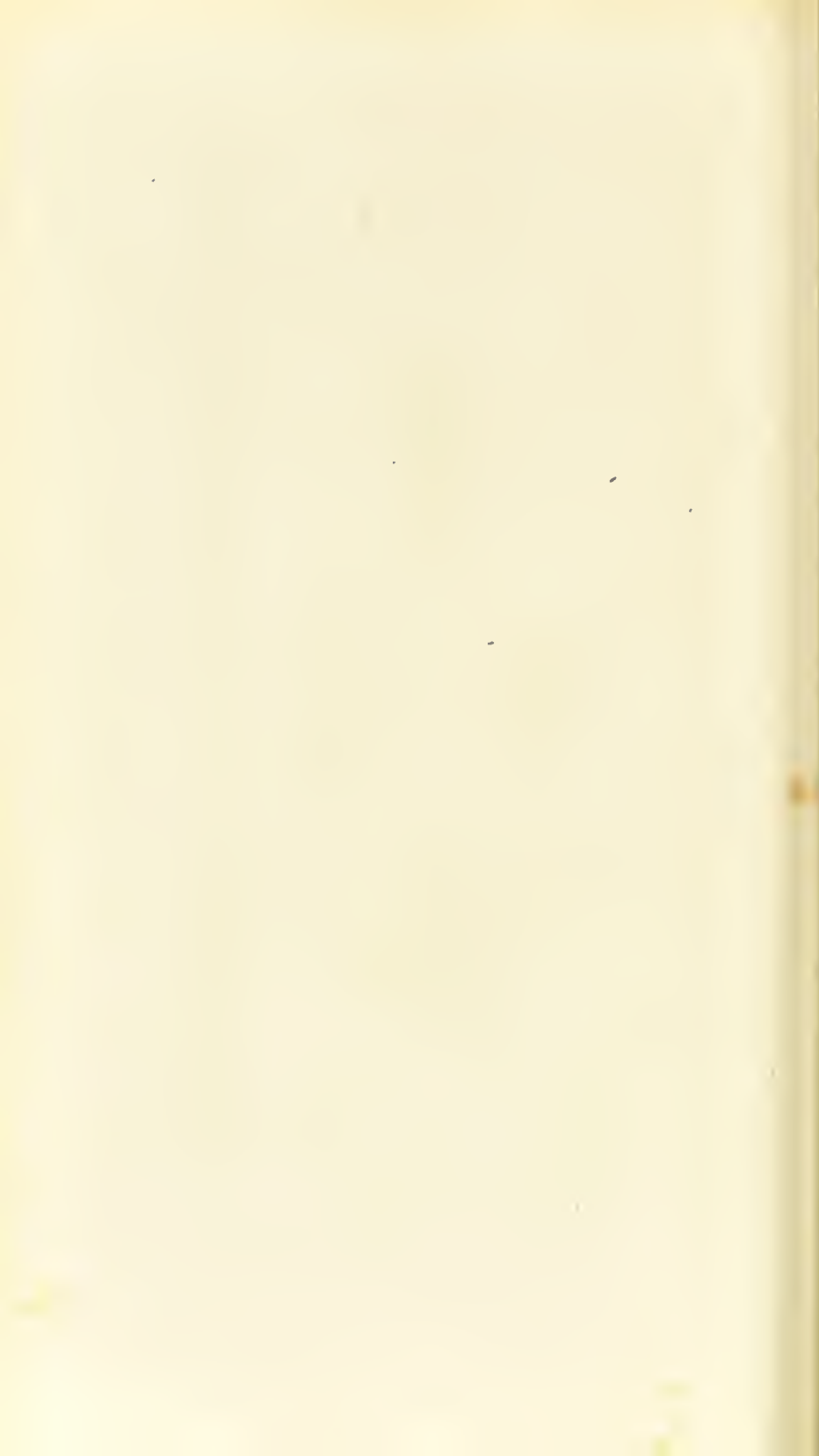
*Figs. 7, 8, and 9.* SECTIONS OF CORD BELOW THE MEDULLA.

*Fig. 10.* SECTION AT THE POINT OF DECUSSATION OF THE FIBRES.

*Fig. 11.* SECTION THROUGH THE MIDDLE OF THE MEDULLA.

*Fig. 12.* SECTION AT THE JUNCTION OF THE MEDULLA WITH THE PONS.







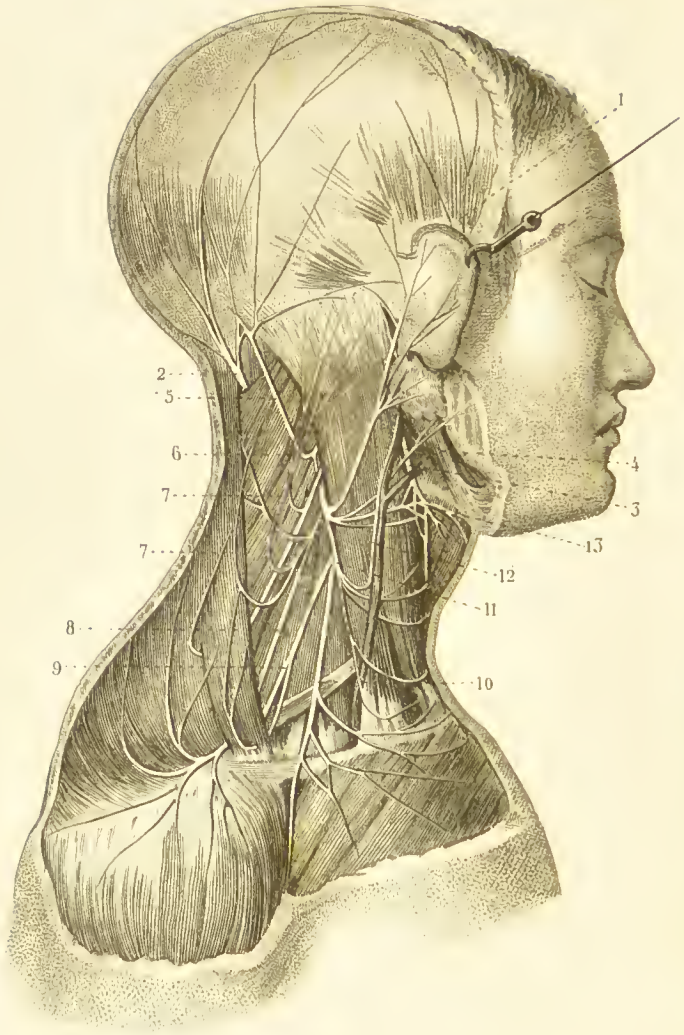


PLATE XCVI.

NERVOUS SYSTEM, PLATE XI.

CERVICAL PLEXUS (*superficial portion*).

1. Temporal branch of auriculo-temporal of fifth.—2. Great occipital.—3. Cervico-facial of seventh.—4. Great auricular (*auriculo-parotidæan*).—5. Lesser occipital.—6, 7, 7. Cutaneous branches.—8. Spinal accessory of eighth.—9. Acromial branch of descending cervical.—10. Middle clavicular.—11. Superficial cervical.—12. Small branch accompanying the external jugular vein.—13. Superficial plexus, formed by the inosculation of the facial and superficial cervical nerves.



PLATE XCVII.

NERVOUS SYSTEM, PLATE XII.

DEEP PORTION OF CERVICAL PLEXUS AND BRACHIAL PLEXUS.—  
The chest is opened on the right side.

1. Facial.—2. Pneumogastric.—3. Internal carotid artery.—  
4. Spinal accessory.—5. Inosculation of the spinal accessory  
with the cervical plexus.—6. Hypoglossal (ninth), dividing into  
two portions, one supplying the motor muscles of the tongue,  
the other a descending branch uniting with the cervical plexus  
(*descendens noni*).—7. Anterior branch of first cervical, joining  
the hypoglossal and pneumogastric.—8. *Communicans noni*.—  
9, 9. Phrenic.—10, 10. Deep branches of cervical plexus.—  
11. Brachial plexus.—12. Special branch to subclavius muscle.—  
13. Anterior thoracic.—14. External respiratory (*nerve of Bell*).  
—15, 16, and 17. Subscapular, supplying the subscapularis, latissi-  
mus dorsi, and teres major.—18. Axillary artery, embraced by  
the median nerve, the *inner* head crossing it.—19. Branches of  
the brachial plexus.







Fig. 1

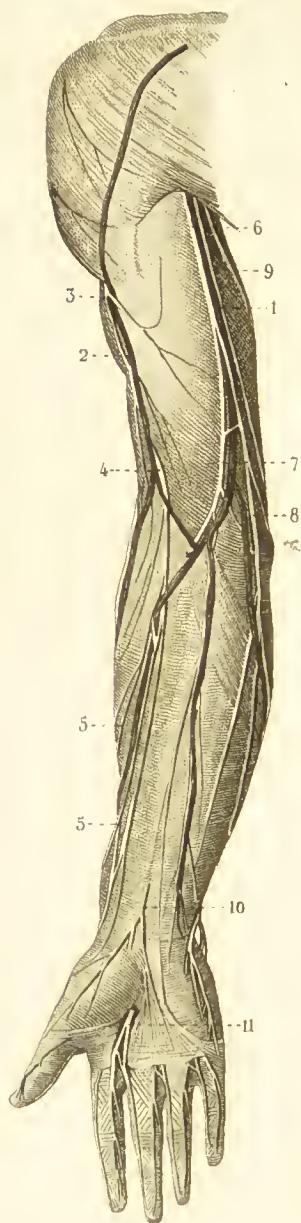
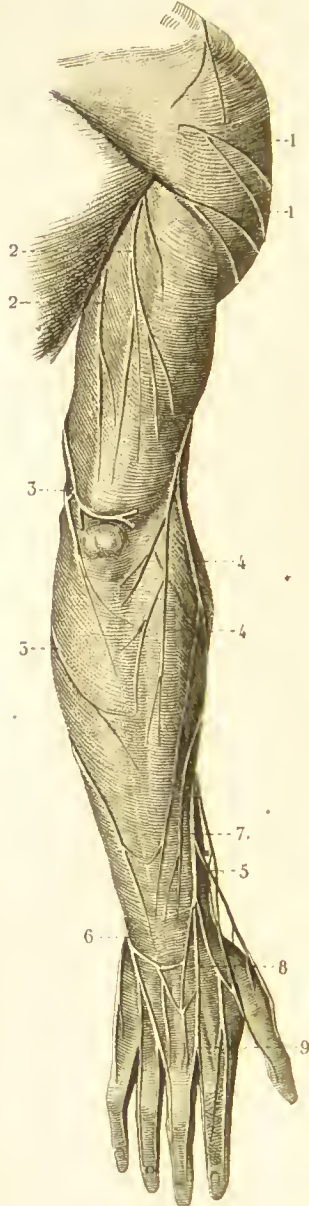


Fig. 2.



## PLATE XCVIII.

### NERVOUS SYSTEM, PLATE XIII.

#### *Fig. 1.* CUTANEOUS NERVES OF UPPER EXTREMITY.

1. Basilic vein.—2. Cephalic vein.—3. Cutaneous branch of circumflex.—4. Cutaneous branch of musculo-cutaneous.—5, 5. Distribution of this nerve to skin of fore arm.—6. Internal cutaneous.—7. External branch of this nerve.—8. Internal branch.—9. Lesser internal cutaneous (*nerve of Wrisberg*).—10. Palmar branch of median.—11. Digital branch of median.

*Fig. 2.*—1. Cutaneous branches of circumflex.—2, 2. Cutaneous branches of musculo-spiral.—3, 3. Branches of internal cutaneous.—4, 4. Branches of external cutaneous.—5. Inosculation of this nerve with the radial.—6. Dorsal branch of ulnar, dividing into two branches, one for the internal surface of the little finger, the other for the sides of the two inner fingers.—7. Posterior branch of radial, dividing into two branches, one for the external surface of the thumb, the other for the opposed surfaces of the thumb, first and second fingers.—8. Inosculation of the radial and ulnar nerves.—9. Digital nerves.

## PLATE XCIX.

### NERVOUS SYSTEM, PLATE XIV.

*Fig. 1.* DEEP NERVES OF THE UPPER EXTREMITY.—The flexor carpi radialis, palmaris brevis, superficial and deep flexors are cut.

1. Brachial artery.—2. Radial artery.—3. Ulnar artery.—4. Musculo-cutaneous.—5. Median.—6. Anterior interosseus.—7. Cutaneous branch to palm.—8. Digital branches of median.—9. Ulnar.—10. Division of palmar branch of ulnar into,—11. Superficial, and,—12. Deep.—13. Musculo-spiral, dividing into,—14. An anterior, and,—15. A posterior branch.

*Fig. 2.* MUSCULO-SPIRAL. — The triceps and the posterior and superficial muscles of the fore arm are cut to show its course.

1. Musculo-spiral.—2. Posterior interosseus branch, dividing into superficial and deep.



Fig 1.

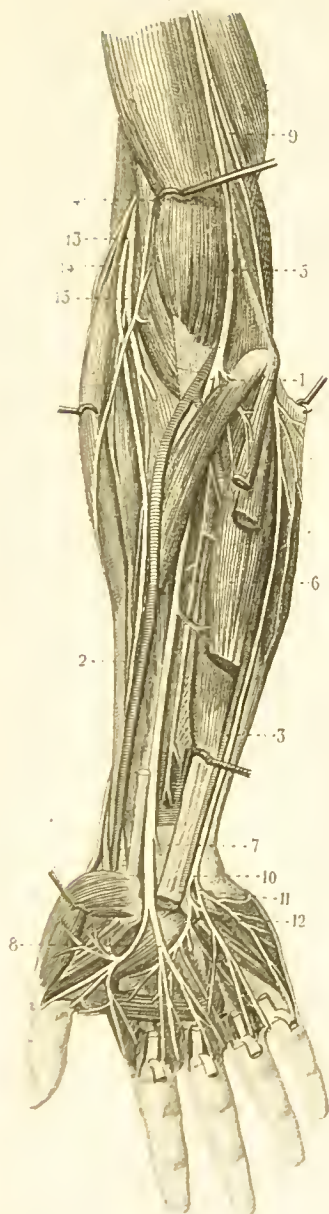


Fig 2

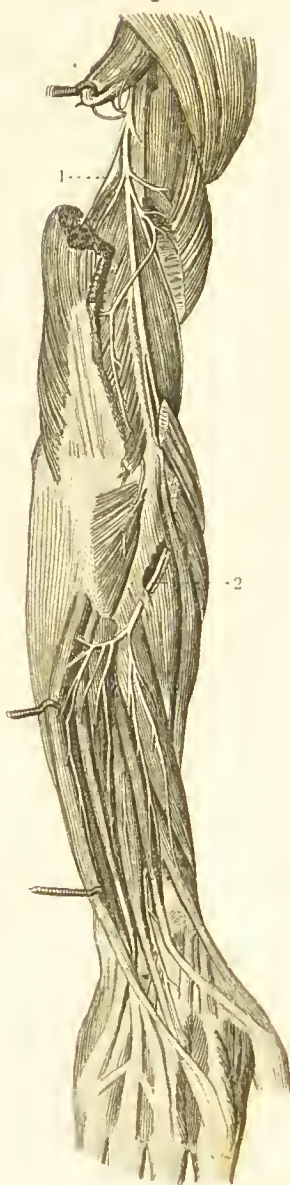






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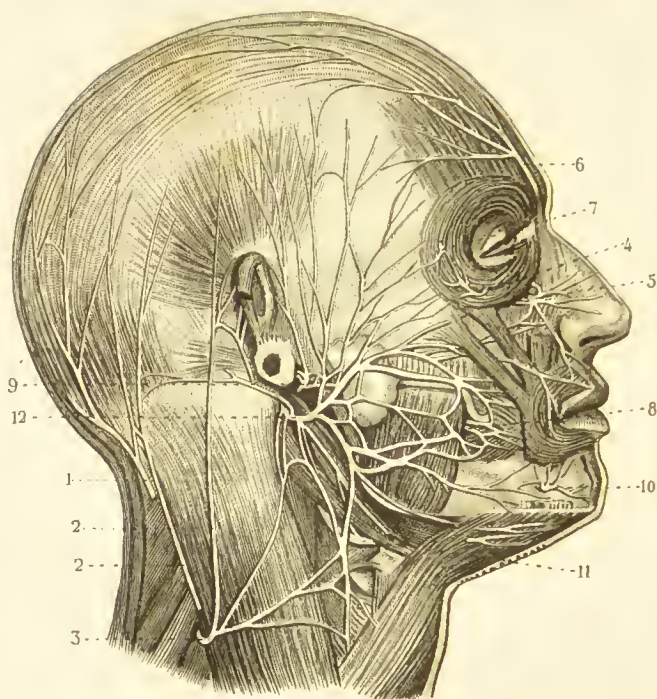


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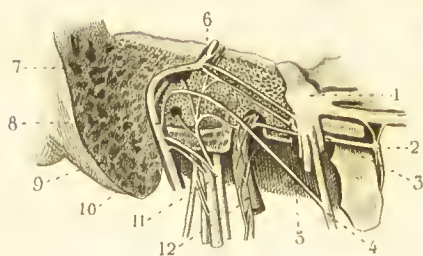
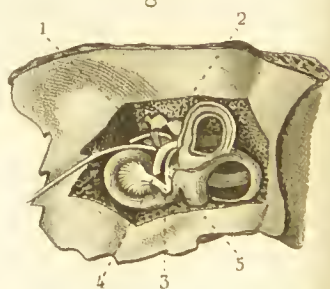


Fig. 3.



## PLATE C.

### NERVOUS SYSTEM, PLATE XV.

*Fig. 1. FACIAL NERVE (portio dura of seventh) AFTER IT HAS LEFT THE AQUEDUCTUS FALLOPII, ETC.*

1. Great occipital.—2, 2. Mastoid branches of cervical plexus.—3. Portion of cervical plexus, giving off branches to small occipital, great auricular, and superficial cervical.—4. Malar branch of superior maxillary of fifth.—5. Infra-orbital.—6. Frontal of fifth.—7. Lachrymal of fifth.—8. Buccal of fifth (*inferior division*).—9. Auricular branch of auriculo-temporal of fifth.—10. Mental branch of inferior dental of fifth.—11. Hypoglossal.—12. Trunk of facial, giving off the posterior auricular, the branch to the posterior belly of the digastric and stylohyoid, and dividing into temporal, orbicular, nasal, buccal, infra-maxillary, and cervical branches.

*Fig. 2. FACIAL NERVE IN THE AQUEDUCTUS FALLOPII.—MECKEL'S GANGLION, OTIC GANGLION, AND GANGLION OF ANDERSCH, ETC.*

1. Gasserian ganglion of fifth.—2. Meckel's, or sphenopalatine ganglion.—3. Vidian and carotid branches of Meckel's ganglion.—4. Gustatory of fifth, receiving the Chorda tympani from the facial.—5. Otic ganglion, and communication with Jacobson's nerve (*tympanic branch of glosso-pharyngeal*) and with the facial.—6. Facial, and its branch of communication with the auditory.—7. Lesser petrosal (the nerve immediately above this is the greater petrosal).—8. Origin of Chorda tympani.—9. Inosculating branch with glosso-pharyngeal.—10. Inosculating branch with pneumogastric.—11. Glosso-pharyngeal and its enlargement (*ganglion of Andersch*).—12. Superior branches of the superior cervical ganglion, forming the carotid plexus, from which proceed filaments inosculating with the Vidian, and with Jacobson's nerve.

*Fig. 3. AUDITORY NERVE (portio mollis of seventh).—The bony labyrinth has been removed.*

1. Facial nerve, and its union with the greater petrosal.—2. Chorda tympani, appearing between the incus and handle of malleus.—3. Auditory nerve.—4. Cochlear branches.—5. Branches to the vestibule and semicircular canals.

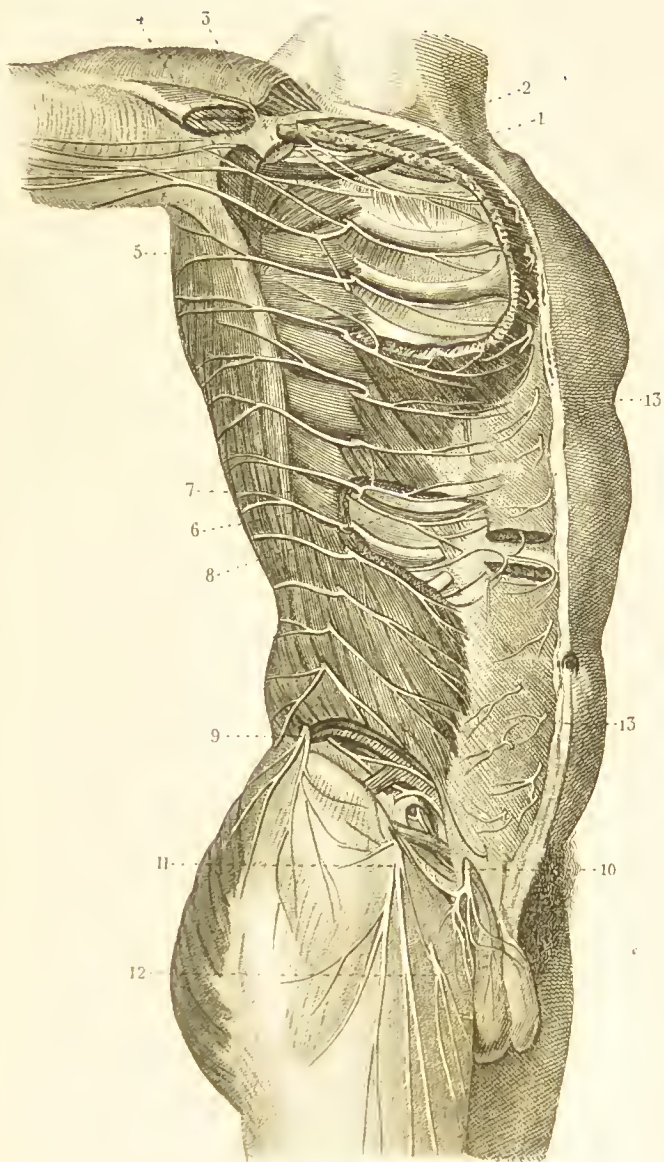
## PLATE CI.

### NERVOUS SYSTEM, PLATE XVI.

INTERCOSTAL NERVES.—The pectorales, major and minor, are removed. The external oblique and the rectus abdominis are opened in places to show the distribution of these nerves.

1. Axillary vein ; the artery is removed.—2. Part of brachial plexus and two of the thoracic branches.—3. First intercosto-humeral.—5. Inosculation between two intercostals.—6. Division of an intercostal nerve into, — 7. A superficial, and, — 8. A deep branch.—9. Cutaneous branch of last dorsal nerve.—10. Ilio-inguinal.—11. External cutaneous.—12. Crural branch of genito-crural.—13, 13. Muscular branches becoming cutaneous.













## PLATE CII.

### NERVOUS SYSTEM, PLATE XVII.

#### NERVES OF THE POSTERIOR PORTION OF THE TRUNK.

Parts of the trapezius, splenius, complexus, biventer cervicis, latissimus dorsi, glutæus maximus, etc., have been removed to display the distribution of the deep branches.

1, 1, 1. Posterior filaments of the superficial branches of the intercostals.—2. Sub-occipital (*first cervical*).—3. Great occipital.—4. Inosculation of this nerve with the lesser occipital.—5, 5. Posterior branches of the cervical nerves.—6. Intercostal:—7. External branch of intercostal.—8. Internal branch of intercostal.—9. Posterior branches of the lumbar nerves.—10. Posterior branches of sacral nerves.

## PLATE CIII.

### NERVOUS SYSTEM, PLATE XVIII.

#### *Fig. 1.* LUMBAR PLEXUS.

1. Last dorsal. — 2. Lumbar portion of sympathetic. — 3. Sacral plexus. — 4. Lumbar plexus. — 5. Ilio-inguinal. — 6. External cutaneous. — 7. Genito-crural. — 8. Anterior crural. — 9. Obturator. — 10. Lumbo-sacral.

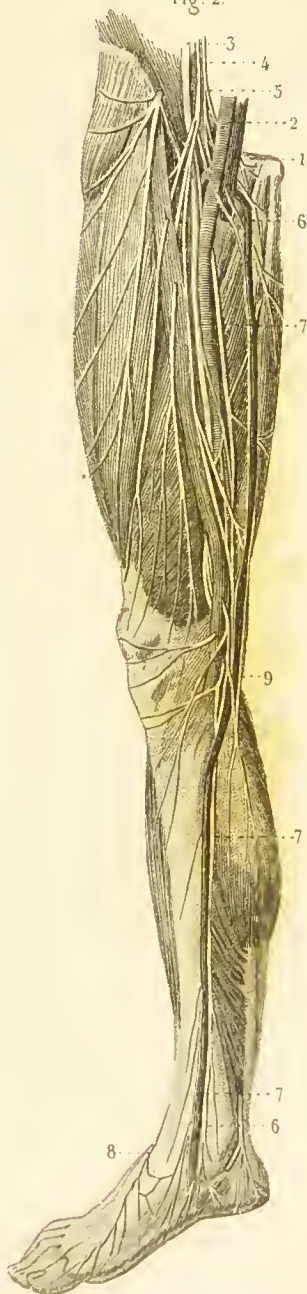
#### *Fig. 2.* ANTERIOR CRURAL AND ITS DIVISIONS.

1. Femoral vein. — 2. Femoral artery. — 3. Anterior crural nerve. — 4. Middle cutaneous. — 5. Branch, passing behind the sheath of the vessels supplying the pectineus. — 6, 6. Internal saphena vein. — 7, 7, 7. Internal saphena nerve. — 8. Internal division of musculo-cutaneous of external popliteal. — 9. Inosculatation of obturator, and saphena, internal cutaneous nerves.

Fig. 1.



Fig. 2.







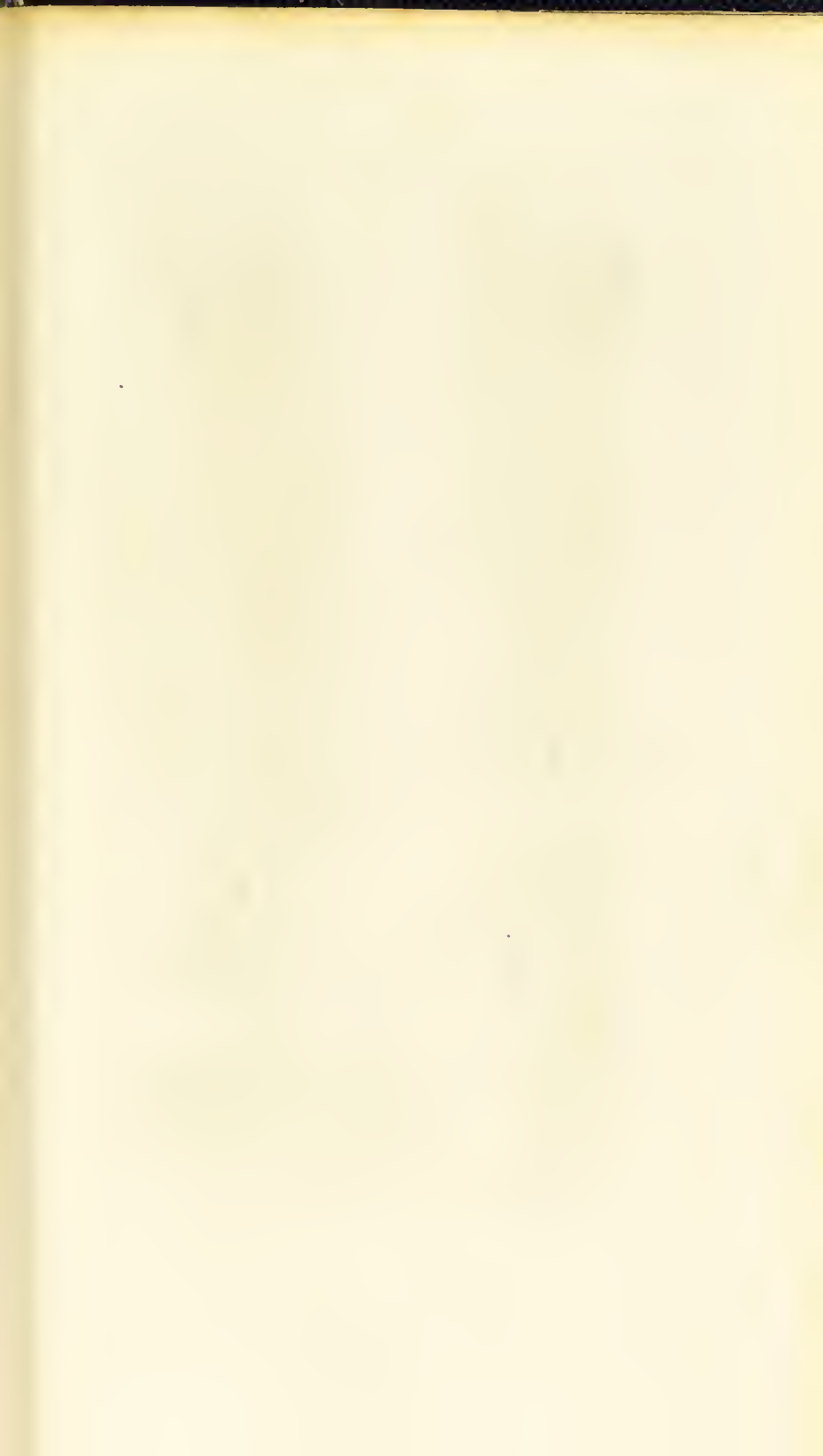


Fig. 1.

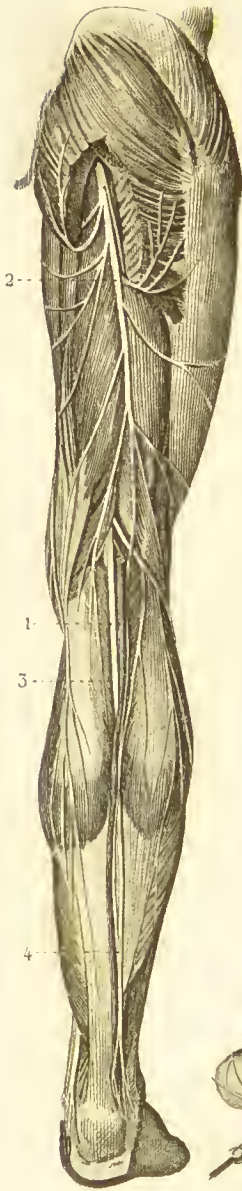


Fig. 2.

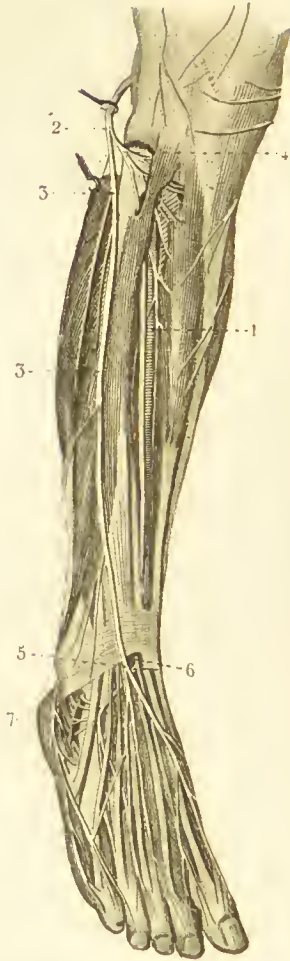


Fig. 3.



## PLATE CIV.

### NERVOUS SYSTEM, PLATE XIX.

*Fig. 1.* THE LOWER PART OF THE GLUTEUS MAXIMUS IS DIVIDED TO SHOW THE LESSER SCIATIC NERVE.

1. External saphena vein.—2. Cutaneous branch of small sciatic.—3. External saphena nerve beneath the deep fascia.—4. External saphena nerve having perforated the deep fascia, and inosculating with communicans fibularis or peronei.

*Fig. 2.*—1. Anterior tibial artery.—2. External popliteal nerve, dividing into,—3, 3. Musculo-cutaneous, and,—4. Anterior tibial.—5. Division of musculo-cutaneous into superficial branches, distributed to the dorsum of the foot, to the opposed surfaces of the first, second, and third toes.—6. Anterior tibial, dividing into two deep dorsal branches.—7. Termination of external saphena nerve.

*Fig. 3.* PLANTAR NERVES.

1. Posterior tibial nerve, dividing into,—2. Internal plantar, and,—3. External plantar.—4. Internal plantar, dividing into four digital branches.—5. External plantar, dividing into a superficial and deep branch.

PLATE CV.

NERVOUS SYSTEM, PLATE XX.

*Fig. 1.* SACRAL PLEXUS.—The pelvis and vertebral columns are divided in the mesial line, and the pelvic viscera cut and turned down.

1. Anterior crural.—2. Obturator.—3. Sacral ganglion of sympathetic, uniting with the plexus.—4. Lumbo-sacral cord.—5 and 6. Sacral plexus.—7. Internal pudic.—8. Dorsal nerve of penis.—9. Perineal nerves.

*Fig. 2.* GREAT SCIATIC.—The glutæus maximus and medius, biceps, gastrocnemius, and soleus, are cut, and partly removed.

1. Superior gluteal.—2. Inferior gluteal of lesser sciatic.—3. Nerve of Sæmmering. — 4. Cutaneous branch of lesser sciatic.—5. Pudic.—6. Great sciatic.—7. External popliteal.—8. Internal popliteal.

*Fig. 3.*—The soleus is removed.—1. External saphena nerve, cut.—2. Posterior tibial nerve.

Fig 2

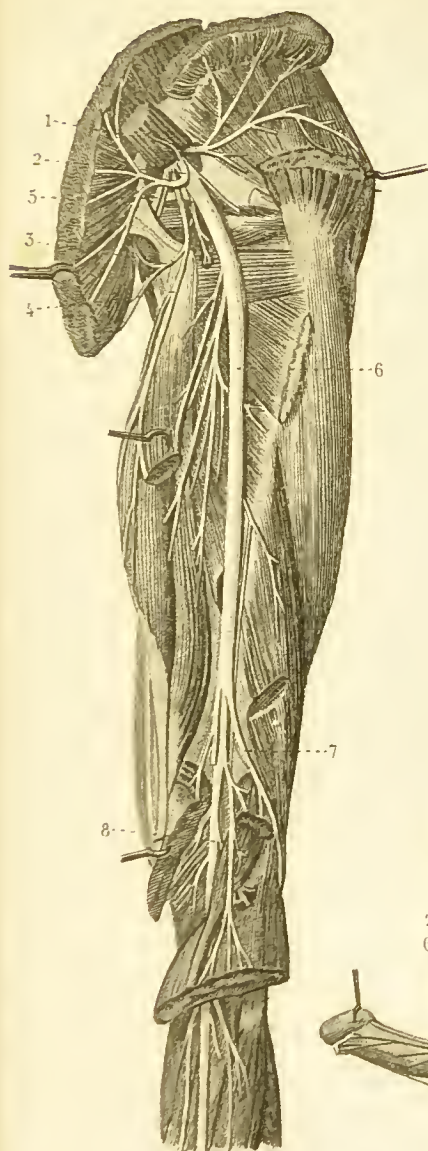


Fig 3.

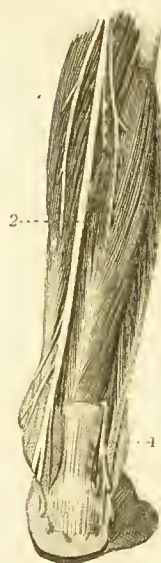
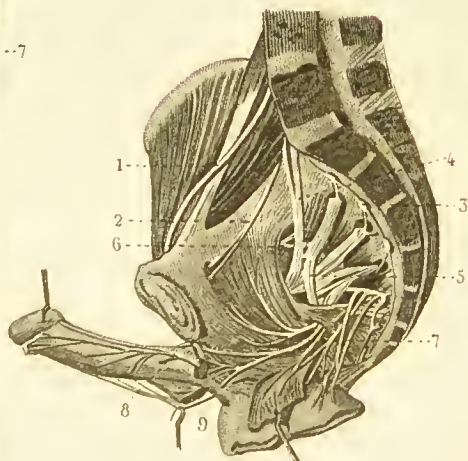


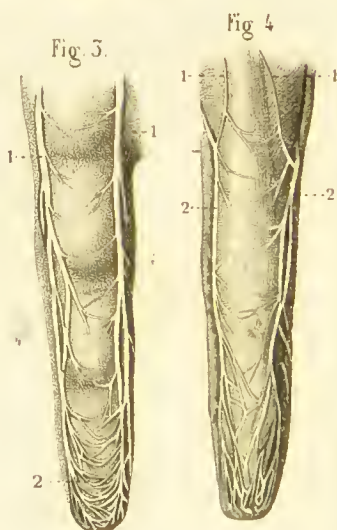
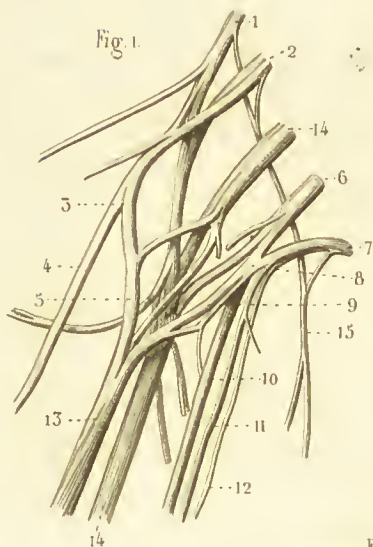
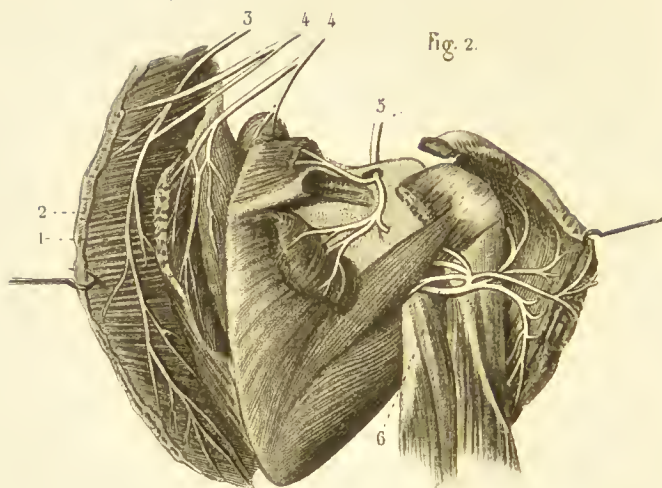
Fig 1.











## PLATE CVI.

### NERVOUS SYSTEM, PLATE XXI.

#### *Fig. 1. BRACHIAL FLEXUS.*

1 and 2. Anterior branches of fifth and sixth cervical.—3. Cord formed by their union (*outer cord of plexus*), and dividing into,—4. Musculo-cutaneous or external cutaneous.—5. Outer head of median.—6 and 7. Eighth cervical and first dorsal.—8. Cord formed by their union (*inner cord*), dividing into,—9. Inner branch of median.—10. Ulnar.—11. Internal cutaneous.—12. Lesser internal cutaneous (*nerve of Wrisberg*).—13. Median nerve.—14, 14. Posterior cord (*musculo-spiral*).—15. External respiratory (*nerve of Bell*).

*Fig. 2.*—1. Trapezius, turned aside.—2. Rhomboidei.—3. Spinal accessory.—4, 4. Deep branches of cervical and brachial plexuses.—5. Supra-scapular.—6. Circumflex.

*Fig. 3.*—1, 1. Palmar digital nerves.—2. Inosculation of digital branches.

*Fig. 4.*—1. Dorsal digital nerves.—2, 2. Dorsal branches of palmar digital.

*Fig. 5.*—1. Palmar digital nerve.—2. Palmar branch sending dorsal twigs.—3. Inosculation of dorsal digital with dorsal branch of palmar digital.—4. Ungual branch of palmar digital.

## PLATE CVII.

### NERVOUS SYSTEM, PLATE XXII.

#### *Fig. 1.* OPTHALMIC DIVISION OF FIFTH.

1. Skin of forehead, turned down.—2. Optic nerve.—3. Third nerve.—4. Fourth nerve.—5. Ophthalmic of fifth.—6. Lachrymal branch.—7. Union of fourth nerve with lachrymal of fifth.—8. Frontal.—9. Nasal.—10. Internal branch of nasal.

#### *Fig. 2.*—SUPERIOR MAXILLARY DIVISION OF FIFTH, ETC.

1. Lachrymal branch of fifth.—2. Orbital branch of superior maxillary.—3. Meckel's, or spheno-palatine ganglion, receiving above two filaments from the superior maxillary, giving off below the palatine branches, and behind, the Vidian.—4. Greater petrosal.—5. Branch to carotid plexus from the Vidian.—6. Posterior dental.—7. Branches to the gums, etc.—8. Anterior dental.—9. Inosculation of dental branches.—10. Infra-orbital.—11. External branches of the inferior maxillary branch of fifth.—12. Auriculo-temporal.—13. Inferior dental, cut.—14. Gustatory and Chorda tympani.—14'. Sub-maxillary ganglion.—15. Glosso-pharyngeal.—15'. Spinal accessory.—16. Pneumo-gastric.—17. Hypoglossal.—18. Internal carotid artery.

#### *Fig. 3.* INFERIOR MAXILLARY BRANCH OF FIFTH.

1. Inferior maxillary nerve, emerging from the foramen ovale.—2. Temporal.—3. External pterygoid branch.—4. Buccal.—5. Masseteric.—6. Auriculo-temporal, uniting with facial.—7. Inferior dental.—8. Mylo-hyoid branch of inferior dental.—9. Gustatory and Chorda tympani.—10. Nerve to internal pterygoid.

Fig. 1.

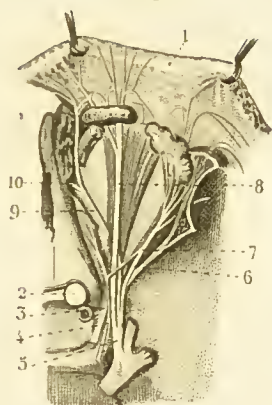


Fig. 3.

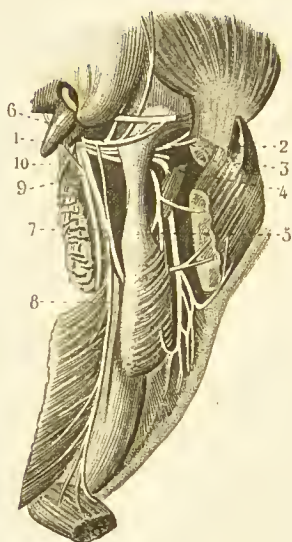
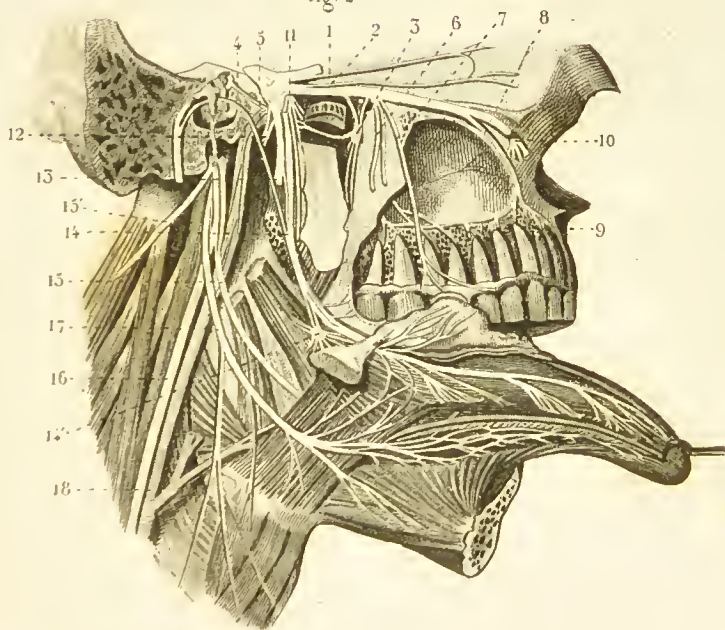


Fig. 2.





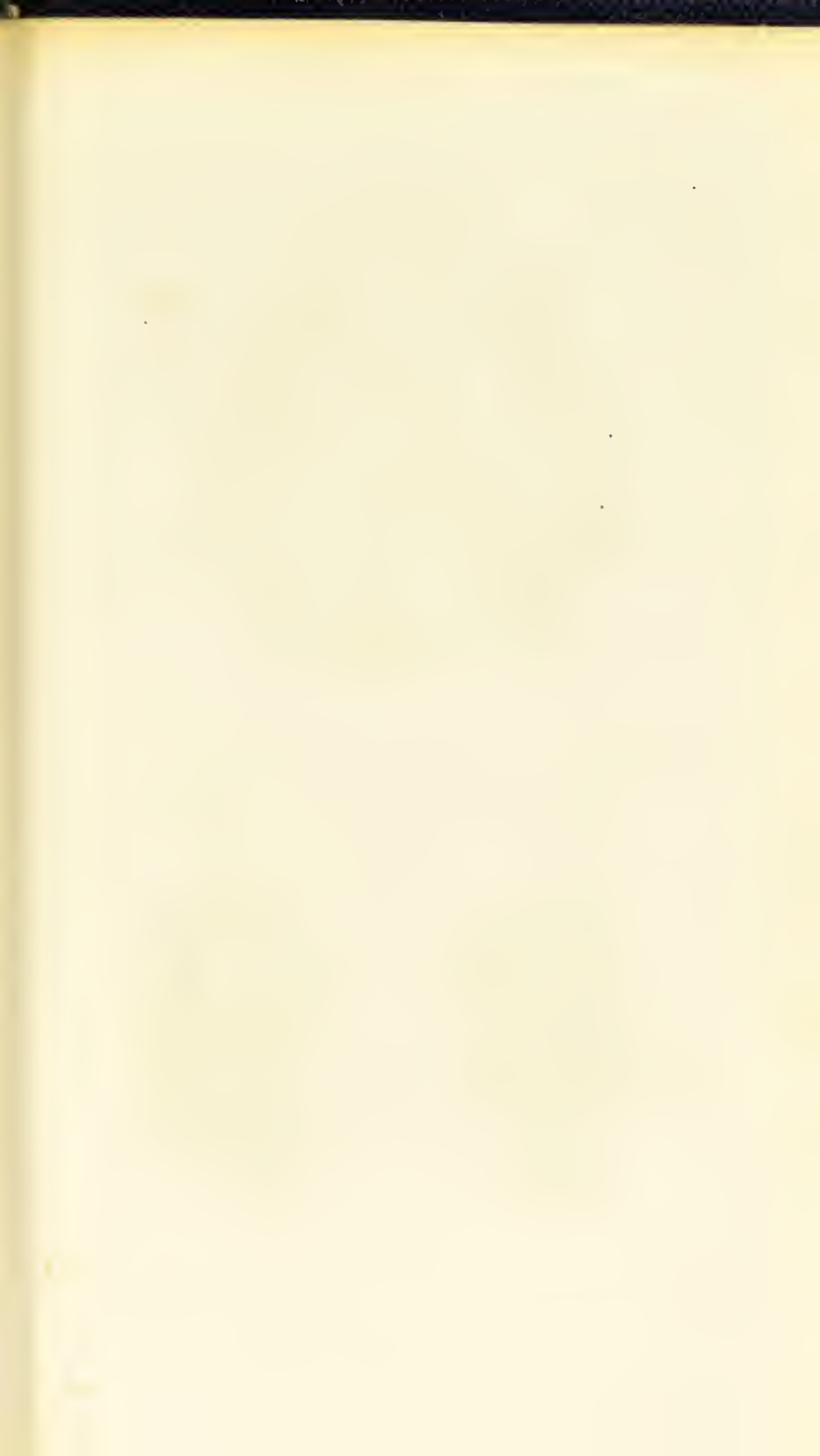


Fig. 1.

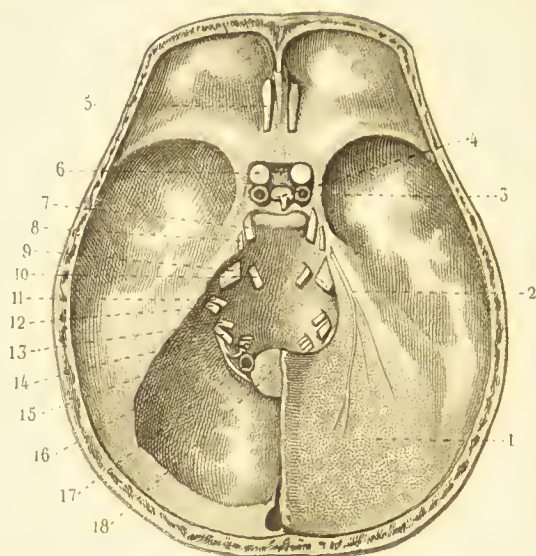


Fig. 2.

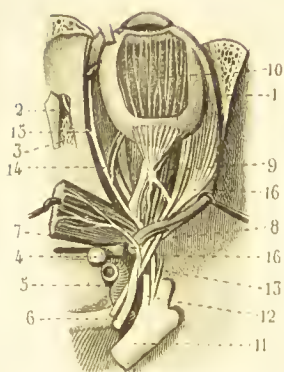
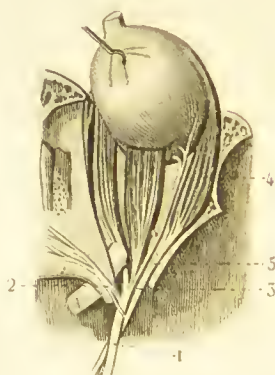


Fig. 3.





## PLATE CVIII.

### NERVOUS SYSTEM, PLATE XXIII.

#### *Fig. 1.* POSITION OF NERVES AT BASE OF SKULL.

1. Tentorium cerebelli.—2. Branches to the tentorium.—3. Internal carotid.—4. Pituitary body and infundibulum.—5. Olfactory bulbs.—6. Optic.—7. Third, or motor oculi.—8. Fourth, or patheticus.—9. Fifth, or tri-facial.—10. Sixth, or abducens.—11. Facial, or portio dura of seventh.—12. Auditory, or portio mollis of seventh.—13. Glosso-pharyngeal of eighth.—14. Pneumo-gastric of eighth.—15. Spinal accessory of eighth.—16. Ninth, or hypoglossal.—17. Vertebral artery.—18. Foramen magnum.

#### *Fig. 2.* NERVES OF EYEBALL.

1. Outer wall of orbit.—2. Crista galli.—3. Cribriform plate of ethmoid.—4. Optic nerve.—5. Internal carotid artery.—6. Third nerve.—7. Its superior division.—8. Its inferior division.—9. Lenticular ganglion, showing its three roots and short ciliary branches.—10. Ciliary nerves, seen on the choroid.—11. Fifth nerve.—12. Ophthalmic division.—13. Nasal.—14. Long ciliary.—15. Division of nasal nerve.—16, 16. Sixth nerve.

#### *Fig. 3.* THIRD AND SIXTH NERVES.

1. Third nerve.—2. Its superior division, receiving a branch from the sixth.—3. Its inferior division.—4. Branch to inferior oblique muscle.—5. Sixth nerve, distributed to external rectus.

## PLATE CIX.

### NERVOUS SYSTEM, PLATE XXIV.

OLFACTORY NERVE.—FIFTH NERVE (*inferior maxillary division*).  
—LARYNGEAL NERVES.

*Fig. 1.*—OLFACTORY, NASO-PALATINE NERVES, ETC.

1. Distribution of olfactory nerve to septum nasi.—2. Nasal branch of fifth to septum.—3. Naso-palatine (*nerve of Cotunnus*).<sup>\*</sup>—4. Other branches to the septum.

*Fig. 2.* INFERIOR MAXILLARY NERVE, SEEN FROM THE SIDE.—The zygomatic arch is removed.

1. Masseteric.—2. Buccal.—2'. Division of this nerve on the external surface of the buccinator.—3. External pterygoid branch.—4, 4. Deep temporal.—5. Auriculo-temporal.—6. Facial.—7. Inferior dental.

*Fig. 3.* OLFACTORY NERVE.—FIFTH NERVE, SEEN FROM ITS LATERAL SURFACE.—OTIC GANGLION.

1. External branch of olfactory.—2. Fifth nerve, Gasserian ganglion and branches.—3. External branch of nasal.—4. Sphenopalatine ganglion.—5, 5, 5. Nasal branches of sphenopalatine and palatine nerves.—6. Descending palatine.—7. Gustatory and Chorda tympani.—8. Inferior dental and its mylo-hyoid branch.—9. Auriculo-temporal.—10. Pterygoid branches.—11. Otic ganglion.—12. Branch of this ganglion to the Eustachian tube and tensor palati muscle.—13. Lesser petrosal nerve, uniting with the facial.—14. Branch to tensor tympani.—15. Filament to sympathetic nerve, on the middle meningeal branch of the internal maxillary artery, communicating with the auriculo-temporal.—16. Facial.—17. Chorda tympani, passing between the handle of the malleus and vertical ramus of the incus.

*Fig. 4.*—1. Superior laryngeal nerve.—2. Inferior or *recurrent* laryngeal.—3. Their inosculation.

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\* The ganglion of Cloquet is shown in the anterior palatine foramen.

Fig. 1.

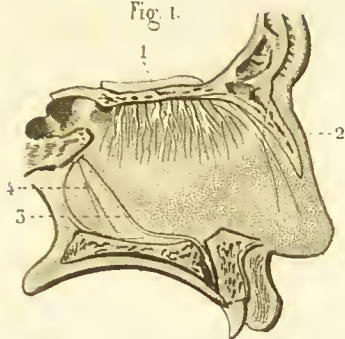


Fig. 4.

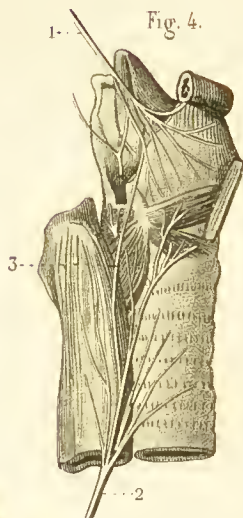


Fig. 2

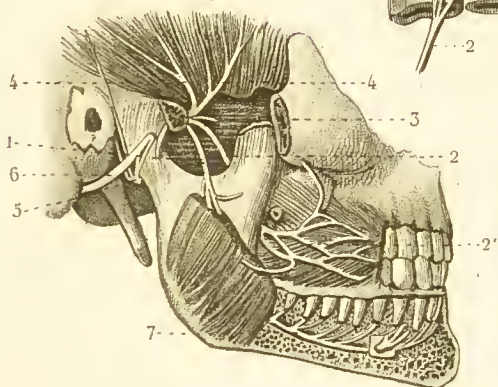
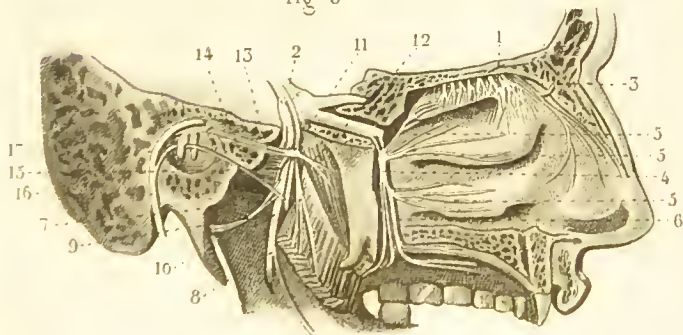
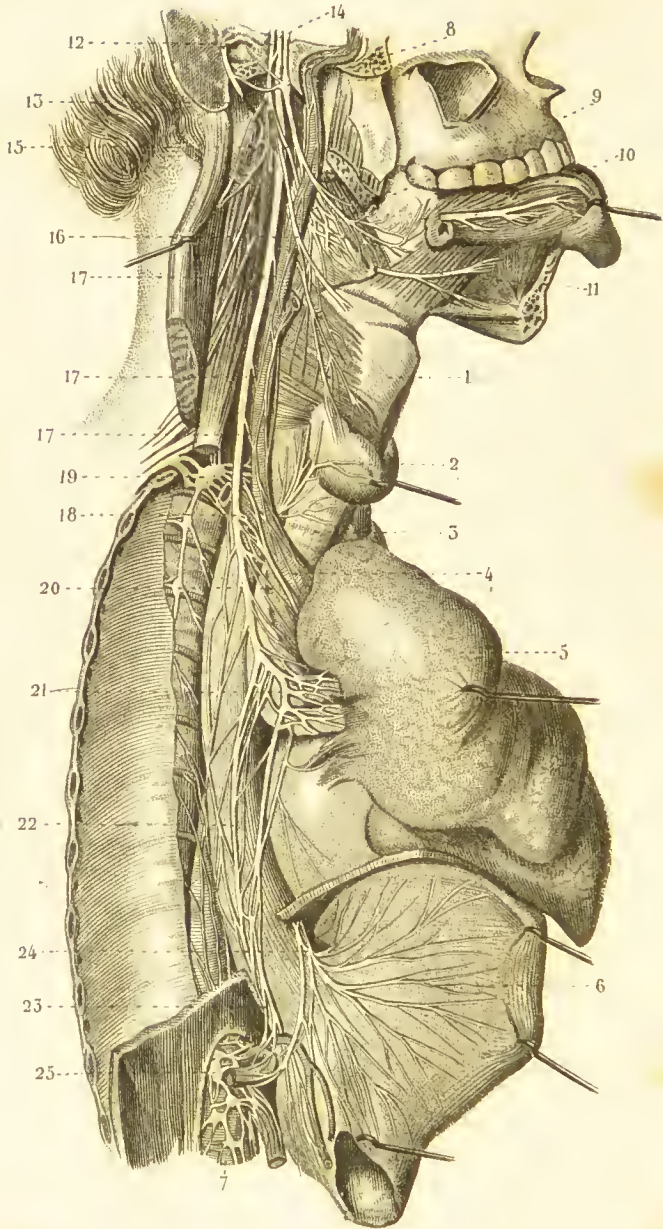


Fig 3











## PLATE CX.

### NERVOUS SYSTEM, PLATE XXV.

EIGHTH PAIR, GLOSSO-PHARYNGEAL, PNEUMO-GASTRIC, AND SPINAL ACCESSORY NERVES.

The walls of the chest are opened, the stomach and right lungs drawn forward, the internal jugular vein removed, and the jugular foramen opened and seen from the side.

1. Larynx.—2. Thyroid body.—3. Trachea.—4. Innominate artery. This vessel and its branches are shown covered with nervous plexuses.—5. Right lung.—6. Stomach.—7. Solar plexus.—8. Glosso-pharyngeal, ganglion of Andersch, Jacobson's nerve, and filament to facial.—9. Branches of glosso-pharyngeal to pharynx and base of tongue.—10. Gustatory.—11. Hypoglossal.—12 and 13. Spinal accessory. (12, *Spinal* portion, and 13, *the accessory*).—14. Vagus.—15. Pharyngeal branches, forming, with the glosso-pharyngeal and sympathetic, the pharyngeal plexus.—16. Superior laryngeal, giving off the external laryngeal to the crico-thyroid muscle.—17, 17, 17. Cardiac branches.—18. Origin of recurrent laryngeal (on the right side the nerve winds round the subclavian artery, and on the left round the arch of the aorta).—19. Inferior cervical ganglion of sympathetic.—20. Bronchial branches of vagus.—21. Pulmonary plexus, formed by the pneumo-gastric, recurrent-laryngeal, and sympathetic.—22. Plexus gulæ.—23. Branch of right pneumo-gastric to the solar plexus.—24. Left pneumo-gastric, distributed to the anterior surface of stomach, and sending filaments to the solar plexus.—25. Solar plexus.

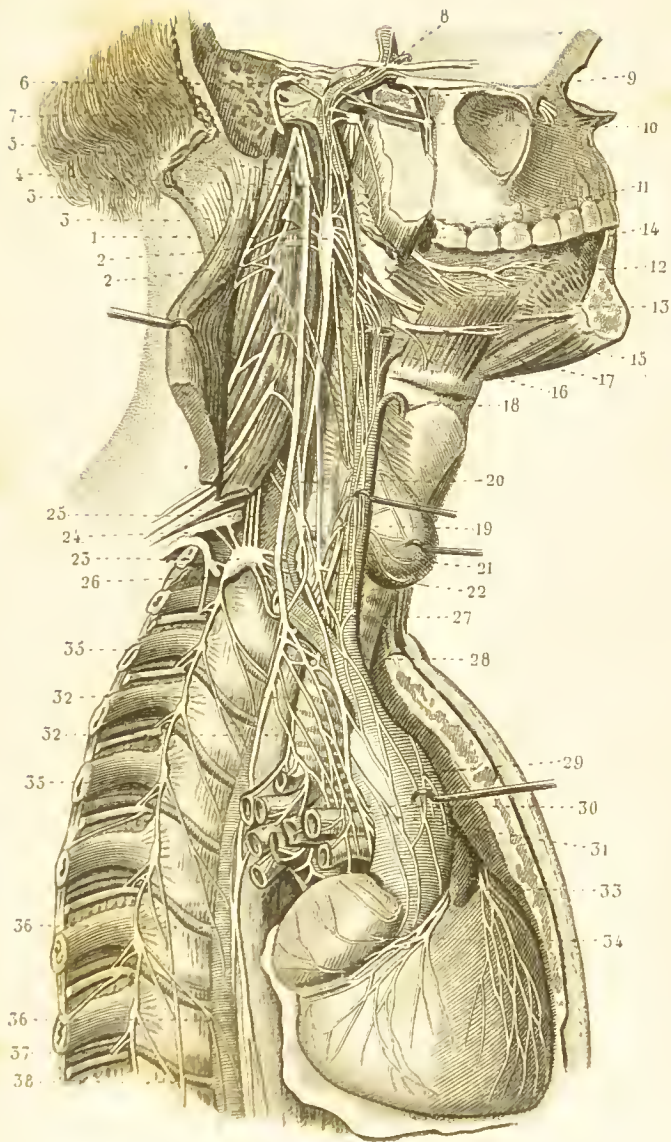


## PLATE CXI.

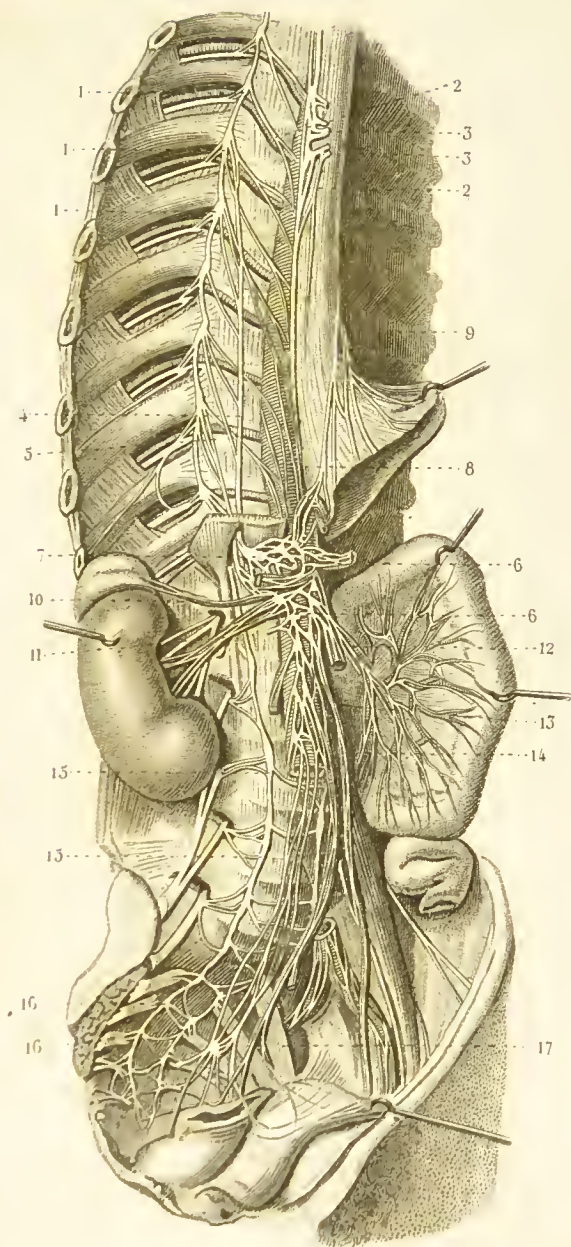
### NERVOUS SYSTEM, PLATE XXVI.

SYMPATHETIC NERVE (*superior portion*).—CARDIAC NERVES AND PLEXUSES.—The pericardium is opened.

1. Superior cervical ganglion.—2, 2. Its connexions with the spinal accessory.—3, 3. Its connexions with cervical nerves.—4. Its connexion with the pneumo-gastric.—5. Superior branches of the superior cervical ganglion.—6. Branch to Jacobson's nerve.—7. Branches to the otic ganglion.—8. Branches to the sixth nerve.—9. Branches to the Vidian nerve.—10. Sphenopalatine ganglion, giving off the Vidian, receiving two branches of communication from the superior maxillary nerve, and giving off palatine branches.—11. Pharyngeal and carotid branches.—12. Glosso-pharyngeal nerve.—13. Pharyngeal plexus.—14. Gustatory.—15. Hypoglossal.—16. Carotid branches.—17. Superior cardiac nerves.—18. Cardiac branch of vagus.—19. Middle cervical ganglion.—20. Superior branches of this ganglion, one continuous with the superior cervical ganglion, and the others uniting with the cervical nerves.—21. Middle cardiac nerve, arising from the inter-ganglionic cord, between the middle and inferior ganglia.—22. Inosculature of this nerve with the recurrent laryngeal.—23. Inferior cervical ganglion.—24. Inosculature with the brachial plexus.—25. Branches passing into the canal of the vertebral artery.—26. Branches inosculating with the middle cervical ganglion, passing, some in front and some behind the subclavian artery.—27. Superior cardiac nerve.—28. Union of pneumo-gastric with the cardiac nerves of sympathetic.—29. Cardiac nerves in front of aorta.—30. Cardiac nerves between the aorta and pulmonary arteries.—31. Cardiac nerves between the pulmonary artery and trachea.—32, 32. Tracheal branches of pneumo-gastric, and their inosculature with the cardiac nerves.—33. Anterior cardiac plexus.—34. Posterior cardiac plexus.—35, 35. Thoracic ganglia of sympathetic.—36, 36. Aortic branches from these ganglia.—37. Union of ganglia of sympathetic with spinal nerves.—38. Greater splanchnic.









## PLATE CXII.

### NERVOUS SYSTEM, PLATE XXVII.

*Fig. 1.* SYMPATHETIC (*inferior portion*), THORACIC, LUMBAR AND SACRAL GANGLIA.—SOLAR PLEXUS, ETC.

1, 1, 1. The thoracic ganglia of the sympathetic, and their branches of communication with the intercostals.—2, 2. Aortic branches.—3, 3. Branches of pulmonary plexus, cut, belonging to the right pneumo-gastric.—4 and 5. Greater splanchnic and lesser splanchnic.—6, 6. Solar plexus.—7. Semi-lunar ganglion.—8. Right pneumo-gastric.—9. Left pneumo-gastric, giving off branches to the anterior surface of the stomach.—10. Supra-renal plexus.—11. Renal plexus.—12. Nerves distributed to a fold of intestine.—13. Aortic plexus.—14. Spermatic plexus.—15, 15. Lumbar ganglions, showing their branches of connexion with the lumbar nerves and aortic plexus.—16, 16. Sacral ganglia. These ganglia intercommunicate, and, with the sacral nerves, form plexuses which accompany the arteries of the pelvis.—17. Sacral plexus.







